

1919.

ANNUAL REPORT

AND

VITAL STATISTICS

For the year 1919.

For the Urban District

OF

WINSFORD.

PREPARED BY

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Medical Officer of Health for the District.

In accordance with instructions from the
Ministry of Health.

April, 1920.

Winsford Medical Officer of Health's Report, 1920.

Gentlemen,

I have the honour to submit herewith my Third Annual Report.

In a circular, dated January, 1920, which the late Sir Robert Morant (the Chief Secretary to the Ministry of Health) addressed to the Clerk to the Council, he stated that he was directed by the Minister (Dr. Addison) to bring to the consideration of the Council : “ The important question of taking special steps, now that the war is over, to inform themselves without further delay as to the general condition of the health of the population of their area, and of the various health services for which the Council are responsible to the population of their area, under the Public Health Acts, the Maternity and Child Welfare Act, the Midwives Acts, and the other Statutes and Regulations through which the prevention of disease, the diminution of sickness, and the general physical welfare of the people are intended to be promoted. Owing to the pressure of war conditions throughout the five years that have elapsed since the usual memorandum as to the compilation of the Annual Reports of Medical Officers of Health was last issued from this office, it has doubtless not been possible to maintain all those services at their normal plane of efficiency ; and it has certainly in no case been possible to spare much time for the annual surveys and reports on these matters which have in the past afforded such valuable opportunities for revising the working of national health organisation and for examining its achievements and its defects.”

“ Not only,” the circular continues, “ is such a scrutiny overdue ; it has also become doubly requisite in order, first, to bring to light any local consequences of war conditions ; and, secondly, to form the basis for that careful and comprehensive scheme of health developments generally which it is hoped may shortly follow, IN EVERY LOCALITY, upon the recent unification in the Ministry of Health of the various CENTRAL functions in respect of all matters affecting the health of the people ; since this

unification of the central administration implies and, indeed, cannot be effective without, a corresponding co-ordination of local health activities."

"For these reasons the Ministry of Health would urge upon the Council the desirability of instructing their M.O.H., on this occasion, to compile the Report, which he furnishes annually to the Council and to the Ministry (under Section 191 of the Public Health Act, 1875, and otherwise) upon the lines indicated in a Memorandum accompanying the circular, the subjects therein specified being dealt with in the order there given."

The paragraphs of this Report comply with this instruction, and their headings correspond with those of the memorandum. Sir Robert Morant drew attention to the value of this uniform arrangement of the reports from all areas for the consideration by the Ministry of the information afforded "in respect of the health of the people in all parts of the country," and so as to present to Parliament a more comprehensive survey than heretofore of this important field of national well-being.

He further suggested that the Council "should arrange for the report to be distributed locally, as widely as possible, and should take steps, through the local press and otherwise, to bring its contents effectively to the knowledge of the people. One of the main purposes of the compilation of the Report is that, by giving it the widest publicity, it shall engender a popular interest in the subject and an enlightened public opinion which shall support the Local Authority in realising its high responsibilities for the health of the area, and in remedying, at the earliest opportunity, the various defects which the survey may bring to light, whether arising from war conditions or from other causes."

"It will also," the circular points out, "be found advantageous for Local Authorities to establish a regular system of exchange of the Annual Reports of the Medical Officers of neighbouring authorities, and also of areas in other parts of the Kingdom where conditions are more or less comparable. In the past there has been a tendency for authorities to work too much in isolation, and it is important to realise that some of the opportunities for progress and improvement are lost unless all who

are now studying public health problems can arrange to pool their experience. It should be remembered that an apparent failure may be as illuminating and as important in its ultimate results as an immediate success ; and for this reason it is to be noted that the Reports of different areas will be all the more useful generally if they deal fully with difficulties and failures, a frank examination of which may prove to be of vital importance."

I. NATURAL AND SOCIAL CONDITIONS OF THE DISTRICT.

(i.) Population.

In 1811 (Ormerod's History)	2,684
In 1871 (Ormerod's History)	7,630
At 1891 Census	10,440
At 1901 Census	10,382
At 1911 Census	10,772
1916 Estimate	9,950
1917 Estimate—Birth Rate	11,196
Death Rate	10,044
1918 Estimate—Birth Rate	11,263
Death Rate	10,052
1919 Estimate—By General Register Office, Somerset House—Birth Rate	*11,935
Death Rate	11,457

*The estimate made in this office is rather higher, viz., 12,145

(ii.) Physical Features and General Characters of the District.

AREA.—5,780 acres of which about 100 are covered by water.
5,680 acres of land.

There are two parishes, Over and Wharton, divided by the River Weaver. Over contains 4,527 acres ; Wharton, 1,253 acres.

Over slopes towards the East, Wharton towards the West. The western portion of Over is **200 feet** above the sea level. The surface of the river is **60 feet** above the sea level. The eastern parts of Wharton are **140 feet** above the sea level.

SOIL.—Over is partly on clay and partly on sand. Wharton is on clay. The old wells in Over ran in a line along Well Street. Above, that is to the West of, this line the soil is sandy. Below this line the soil is marl or heavy clay.

SUBSIDENCE.—A sketch map annexed indicates the main areas in which this is occurring or may be anticipated. Its progress is very gradual; but its extent is indicated by such facts as : that between Stocks Stairs and Rilshaw the Weaver was once fordable, now it is of great depth ; the present Market Hall stands ON TOP of the former Market Hall, now sunk underground ; the fall of Station Road 20 feet between Greville Lodge and the Rilshaw Mills is within the memory of the present generation. The subsidence rules out some otherwise very eligible building land from any building scheme.

(a) **Social Conditions, including Chief Occupations of the Inhabitants.**

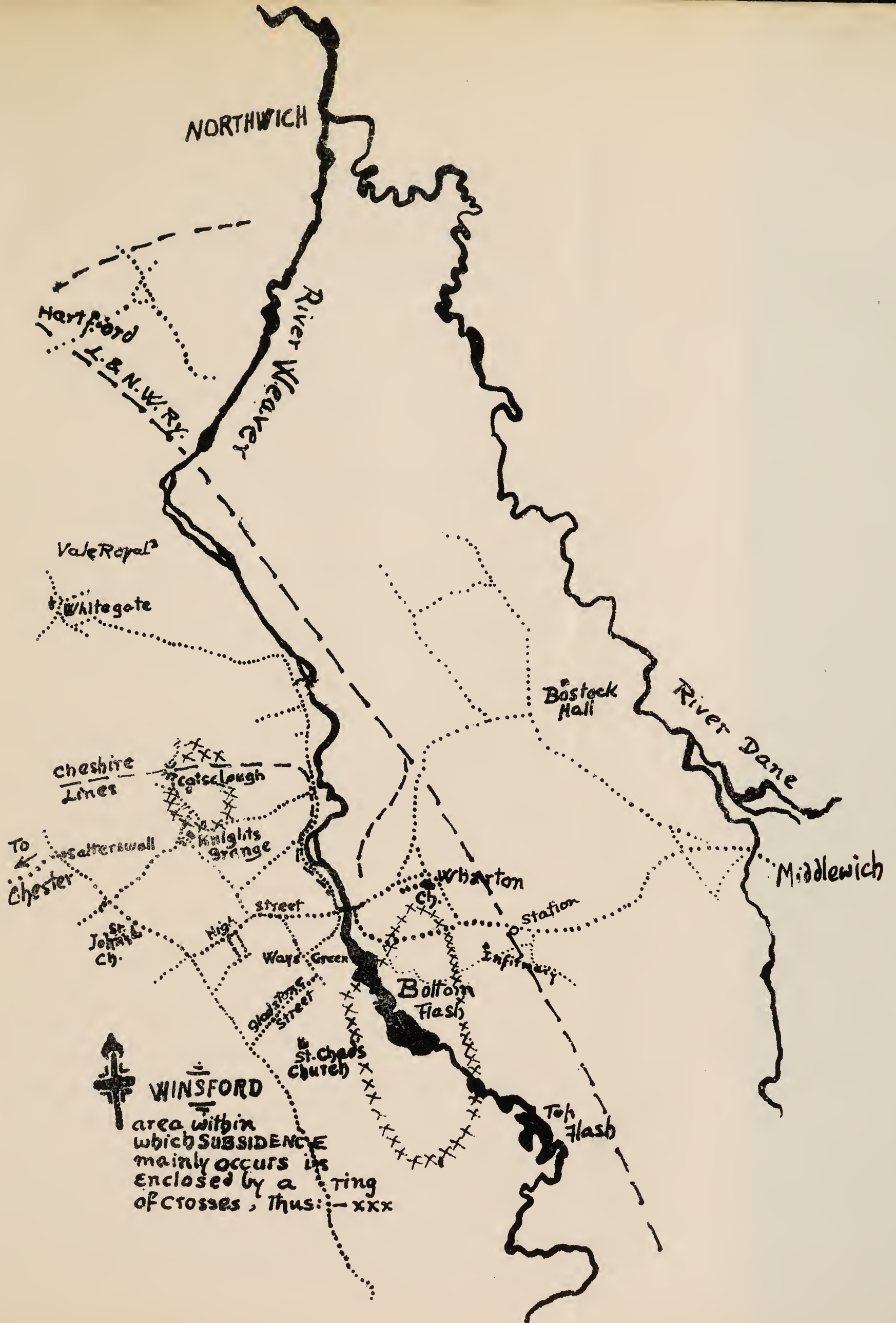
The salt industry is the keynote of the district. The “meadows” through which the Weaver flows are now covered with black wooden sheds, with partly open roofs, in which brine is evaporated. The industry employs the greater part of the population, and is healthy.

(b) **THE INFLUENCE OF ANY PARTICULAR OCCUPATION ON PUBLIC HEALTH.**—In the influenza epidemic, which in Winsford occurred (in three waves) between July 13th, 1918 and April 5th, 1919, out of 53 deaths, only 8 occurred amongst bona-fide salt workers, and of these three had complications existing prior to the influenza.

In the outlying parts the population are engaged in rural pursuits. The northern portion of the district is sylvan, embracing part of the park of Vale Royal Abbey.

(c) **Vital Statistics.**

Births (108 male, 123 female)	231
Birth Rate per 1,000 living (total population) :—	
England and Wales	18.5
96 great towns, including London (census populations exceeding 50,000)	19.0
148 smaller towns (census populations, 20,000 to 50,000)	18.3
London	18.3
WINSFORD	19.3
Administrative County of Cheshire	15.9
Illegitimate Births (4 male, 6 female) .. .	10





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Deaths (79 male, 95 female)	174
Death Rate per 1,000 living (civilian population):—	
England and Wales	13·8
96 great towns, including London (census populations exceeding 50,000)... ..	13·8
148 smaller towns (census populations 20,000 to 50,000)	12·6
London	13·4
WINSFORD	15·1
Administrative County of Cheshire	13·4

Deaths under 1 year, including the deaths of 2 illegitimate children (males), and including 3 who died elsewhere than in Winsford	22
--	----

Death Rate per 1,000 Births of Children under 1 year :—	
England and Wales	89
96 great towns, including London (census populations exceeding 50,000)	93
148 smaller towns (census populations 20,000—50,000)... ..	90
London	85
WINSFORD : 1910, 84 ; 1911, 147 ; 1912, 102 ; 1913, 145 ; 1914, 104 ; 1915, 111 ; 1916, 84 ; 1917, 141 ; 1918, 109..	95
On the basis of the infantile deaths which took place in Winsford [only 19] the infantile death rate would be	85
Administrative County of Cheshire	91

Causes of Death.

	Males.	Females.	Total.
Whooping Cough	—	1	1
Diphtheria and Croup	1	1	2
Influenza	22	18	40
Pulmonary Tuberculosis	4	2	6
Tuberculosis Meningitis*	—	2	2
Other Tuberculosis Diseases... ..	—	2	2
Cancer	8	5	13
Organic Heart Disease	11	18	29
Bronchitis	8	11	19
Pneumonia (all forms)	1	2	3
Other Respiratory Diseases	1	—	1

								Males.	Females.	Total.
Diarrhoea (under 2 years)	...	...	...	...	...	...	...	1	—	1
Appendicitis	...	...	...	...	...	...	...	1	—	1
Nephritis and Bright's Disease	...	...	...	...	...	...	...	1	3	4
Congenital Debility	...	...	...	...	...	...	...	5	7	12
Violence apart from suicide	...	...	...	...	...	...	...	1	—	1
Other defined diseases	...	...	...	...	...	...	...	15	22	37
Totals	...	...	...	...	...	...	...	79	95	174

* One of these cases was found P.M. to be Meningococcal Meningitis.

Institutions outside the District receiving Sick and Infirm from the District.

- (1) Isolation Hospital for Infectious Diseases, Davenham.
- (2) Union Workhouse, Northwich.

Institutions within District receiving Sick Persons from outside the District.

Albert Infirmary, Wharton (26 beds).

(d) The Amount of Poor Law Relief.

The number of persons who received Poor Law Relief in
1919 239

The number of the same who were over 70 years of age :—

Men 3

Women 6

The number of the same who were children under 16 ... 121

There are no children in the district boarded out by the Union with foster parents.

(e) The extent to which Hospital and other forms of gratuitous medical relief are utilised.

THE ALBERT INFIRMARY received :—

New In-patients 241

Patients for X-Ray examination or treatment 86

Massage (for ex-service men) 35

The Tuberculosis "Dispensary," conducted by the County of Cheshire Tuberculosis Department at the Albert Infirmary on two afternoons a week received :—

New cases 48

Old cases 102

Number of attendances 369

Of the 241 new in-patients in the Albert Infirmary---

Winsford was the domicile of	...	...	...	...	...	105
Middlewich	„	„	...	...	...	62
Tarporley	„	„	...	...	...	12
Holmes Chapel and District of	...	...	...	...	...	26
The Deaths in the Albert Infirmary during the year						
numbered	...	...	...	...	...	11

This Institution is primarily a surgical hospital, and undertakes the routine operation surgery of a wide district from Goostrey to Tarporley—a 20 mile stretch running east and west across the middle of Cheshire. Horse ambulances are run by the St. John Ambulance Brigade and the Winsford and District Ambulance Detachment, and motor ambulances are under consideration by these bodies.

The Hospital services, except medical and surgical, are gratuitous, on production of a subscriber's "letter." The surgical staff, which consists of the eight doctors of the area served by the hospital, are paid by their patients as in private practice.

The County Council pays on a basis of user for in-patients with Surgical Tuberculosis.

A Venereal Disease Clinic, under arrangements with the Ministry of Health and the County Council, is held on Tuesday afternoons. It is officered by members of the surgical staff on a six months rota.

The complaints from which the in-patients in the Albert Infirmary suffered were :—

Tuberculosis of bones and joints, etc. ("Surgical Tuberculosis")	...	...	...	...	...	...	...	22
Heart Disease	...	...	...	...	...	...	...	1
Cysts and Lipomata	...	...	...	...	...	...	...	14
Cancer not operable...	...	...	...	...	...	...	...	2
Skin Diseases	...	...	...	...	...	...	...	4
Plastic Operations, cases for	...	...	...	...	...	...	...	2
Cerebral Concussion and Fractures of Skull and Jaw, and Cerebral Haemorrhage	...	...	...	...	...	...	...	6
Mastoid and Nasal Cases	...	...	...	...	...	...	...	2
Tonsils and Adenoids	...	...	...	...	...	...	...	17

II. SANITARY CIRCUMSTANCES OF THE DISTRICT.

(i.) Water.

Mr. Wilkinson, the Surveyor, takes charge of the water supply. The supply is spring water from three springs in Little Budworth Parish, namely, " Stretches," " Austin," and " Butts " Springs. Thence it is led through a 10-inch pipe to a reservoir in Whitby's Lane in Over. This reservoir will hold 1,500,000 gallons. A gravitation main from the reservoir supplies the greater part of the town.

For the higher portions, above Well Street, water is pumped up into a water tower adjacent to the reservoir.

(a) SUFFICIENCY.—250,000 gallons are delivered in 24 hours by the springs. A small auxiliary supply, of 15,000 gallons in 24 hours, can, if needed, be pumped from a well sunk near the course of a brook that runs through the Council's Little Budworth property. The supply is constant. This water is just enough for present purposes. There is no margin for drought. 250,000 gallons allows a population of roughly 12,000 about 21 gallons a head per day. The amount generally considered necessary is 30 gallons.

The " average requirements " of the text books include from 5 to 7 gallons per head for water closets. If 868 cess-pool-privies in Winsford were to be converted into water-closets, then 27,342 gallons per day, or 191,394 gallons per week, extra water would be required.

If, further, 299 of the peat pail closets, in areas where sewerage is available, were to be converted to the water-carriage system, then 9,415 gallons of water per day, or 65,905 gallons per week, extra would be needed.

Thus, if a proper water-carriage system were to replace the present insanitary cesspool-privy arrangements, and to partially replace the conservancy system (peat pails), about 36,715 gallons a day, or 257,299 gallons per week, extra water would be necessary.

The solution of this problem is a necessary precedent to any extensive action in dealing with insanitary property involving adoption of water carriage. The Council has for some years had

under consideration an extensive addition to its sources of water supply.

A very few cottages in the outlying parts of Winsford are under rural conditions and depend on wells for their water supply.

(b) QUALITY.—The last reported analyses were in 1913 which, Dr. Garstang mentioned, pronounced the quality “excellent on chemical analysis,” but revealed an undesirable number of the *Bacillus Coli*. The presence of these germs proves contamination either by manure, nightsoil, or sewage. “Careful examination of the springs discloses the fact,” he wrote in 1913, “that the soil is extremely light and porous, and that the surrounding land is heavily manured. The contamination is manurial, and of no immediate danger to the public. . . .”

The manuring complained of in 1913 has been discontinued ; the surrounding land is under grass ; and the quality of the water is believed to be excellent. No dangers of contamination between source and delivery are believed to exist.

(c) PLUMBO-SOLVENT ACTION.—No contamination by lead is known.

(d) No action has been required during the year in respect of any form of contamination.

(ii.) Rivers and Streams.

The River Weaver, when it enters the District from the South, is a sheet of water, called “the Bottom Flash,” nearly one quarter of a mile wide. It flows N N W., narrowing at Winsford Bridge to about 30 yards, and thence nearly due N. The course of the river bisects the district.

The possibilities of contamination are by brine and sewage. As the river flows throughout the Cheshire Salt-field, it no doubt receives a good deal of brine. Sewage contamination may occur, in Winsford, from three sources :—

(1) The outfall works on each side of the Bottom Flash, on the East, or Wharton side, 800 yards above the bridge ; and on the West, or Over side, 600 yards above the bridge. The effluent *soaks* into the river from these outfall works.

(2) Crude sewage from a small part of the town near the bridge, too low-lying to be drained into the outfall sewers.

(3) Crude sewage from "Meadow Bank," a detached portion of the town consisting of Salt-workers' cottages along the left bank of the river, about a mile to the North of the bridge. [The chief Saltworks extend from the bridge to this hamlet.]

The Bottom Flash being of great and unknown depth, the volume of water passing under Winsford Bridge is so large that contamination by sewage is not recognisable.

(iii.) Drainage and Sewerage.

Mr. Wilkinson, the Surveyor, is in control of all sewers and sewerage works.

The sewers of the greater part of the more populous areas of the town consist of 9-inch glazed earthenware pipes. On account of the prevalence of subsidence, clay joints are preferred.

Dr. Garstang, in his 1912 Report, stated "some of the sewers are very old, and are not such as would be laid to-day."

WHARTON SEWERS. In 1913 a new sewer was laid in Station Road (Wharton), from Crook Lane corner to the point where the footpath to Ledward Street emerges. From that point the sewer turns Southwards through the fields and goes to the Sewage beds on the East side of the Bottom Flash. The Ledward Street sewer, conveying the Wharton Road, Princess Street and School Road sewerage, follows the line of the footpath to join the Station Road sewer.

The remainder of the Wharton sewers, viz., those of Gravel Hill and Winsford Hill, run direct to the river.

OVER SEWERS. The High Street sewer receives the Delamere Street sewer from the North, which begins opposite the houses at the corner of Littler Lane; and the Swanlow Lane sewer from the South which begins at the top of Gladstone Street. The High Street sewer, receiving the sewers from Geneva Road, St. George's Road, Haig Street, Well Street and

John Street, and Dean Street on the South, and Charles Street and Siddorn Street on the North, leaves High Street at Clough Row, and turning South is carried across the Dingle on a trestle aqueduct and passes through the fields to Royle Street, and thence by Weaver Street and William Street to the filter beds on the West side of the river. The Waysgreen sewerage is in part connected with this sewer; and in part with the Gladstone Street sewer which runs independently to the same filter beds.

The parts of the town below Clough Hill and George Street drain directly into the River.

RAINWATER runs from Delamere Street by a "separate system" into the valley. In the High Street the rainwater runs in separate sewers under the channels at the road side to the river, and this is the case also in the John Street and Well Street neighbourhood.

In part of Weaver Street in Waysgreen and Gladstone Street, and in Station Road, Wharton, the rainwater is dealt with on the combined system, that is, it runs into the ordinary sewers.

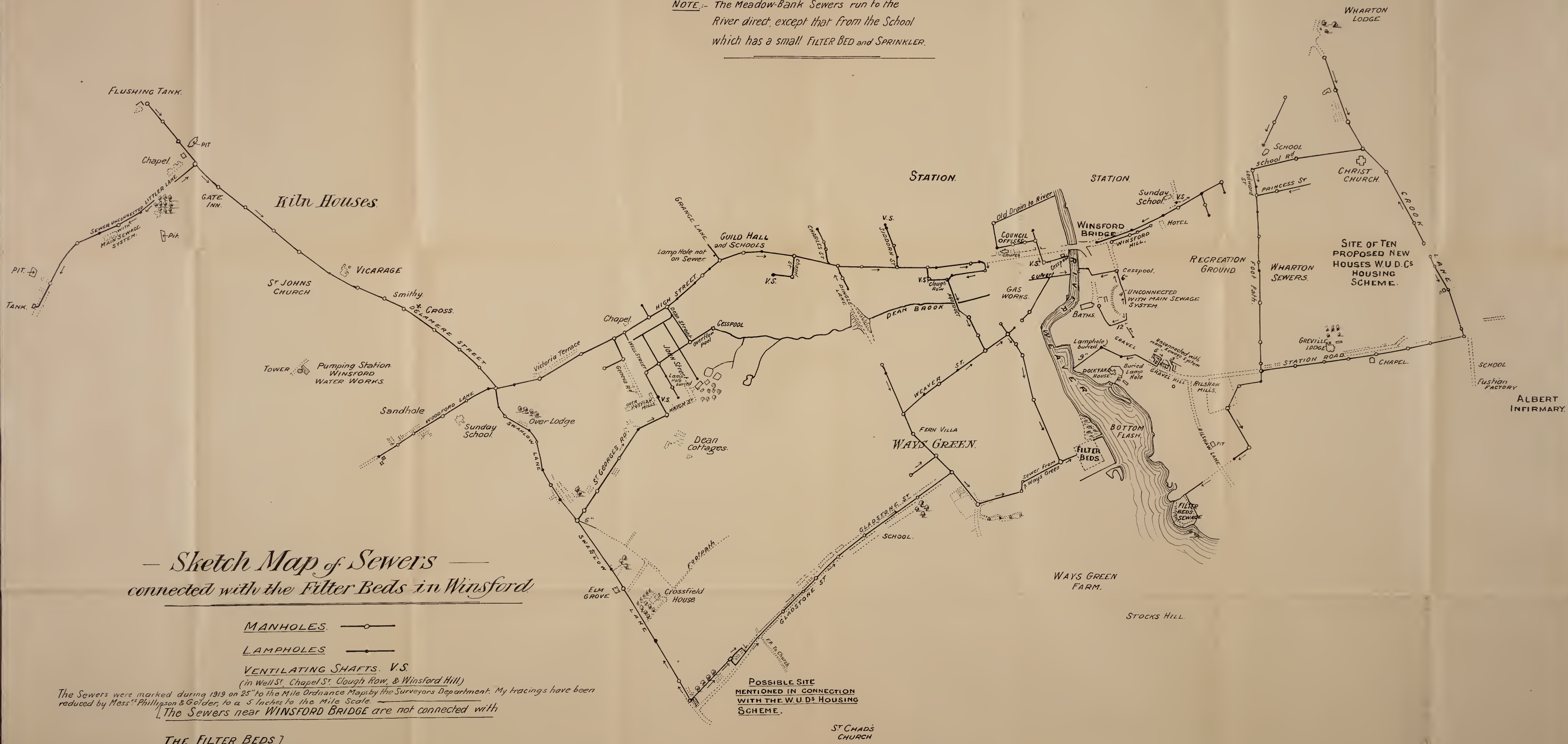
I owe my information on these matters of sewerage to the courtesy of the Surveyor, and in particular to a map prepared by his department by resolution of the Council, on my suggestion, in February, 1919, *a tracing of which is annexed.*

SUFFICIENCY OF SEWAGE. Whether the sewers will continue to suffice depend on the extent to which the conservancy system is replaced by the water carriage system.

The outlying parts of the district are under rural conditions.

SEWAGE DISPOSAL. The system in use in Winsford was described by Dr. Garstang in 1910 as, "according to the point of view," as "either the best and cheapest in the kingdom, or as practically non-existent. There is of course," he continues, "a separate out-fall for each side of the river. Each delivers crude sewage on to a large bed of cinders, whose surface is two or three feet above water level. The bed of cinders itself stands partly on the bank and partly actually in the water....The sewage

NOTE:- The Meadow-Bank Sewers run to the River direct, except that from the School which has a small FILTER BED and SPRINKLER.



— Sketch Map of Sewers —
connected with the Filter Beds in Winsford

MANHOLES. —○—

LAMPHOLES. —●—

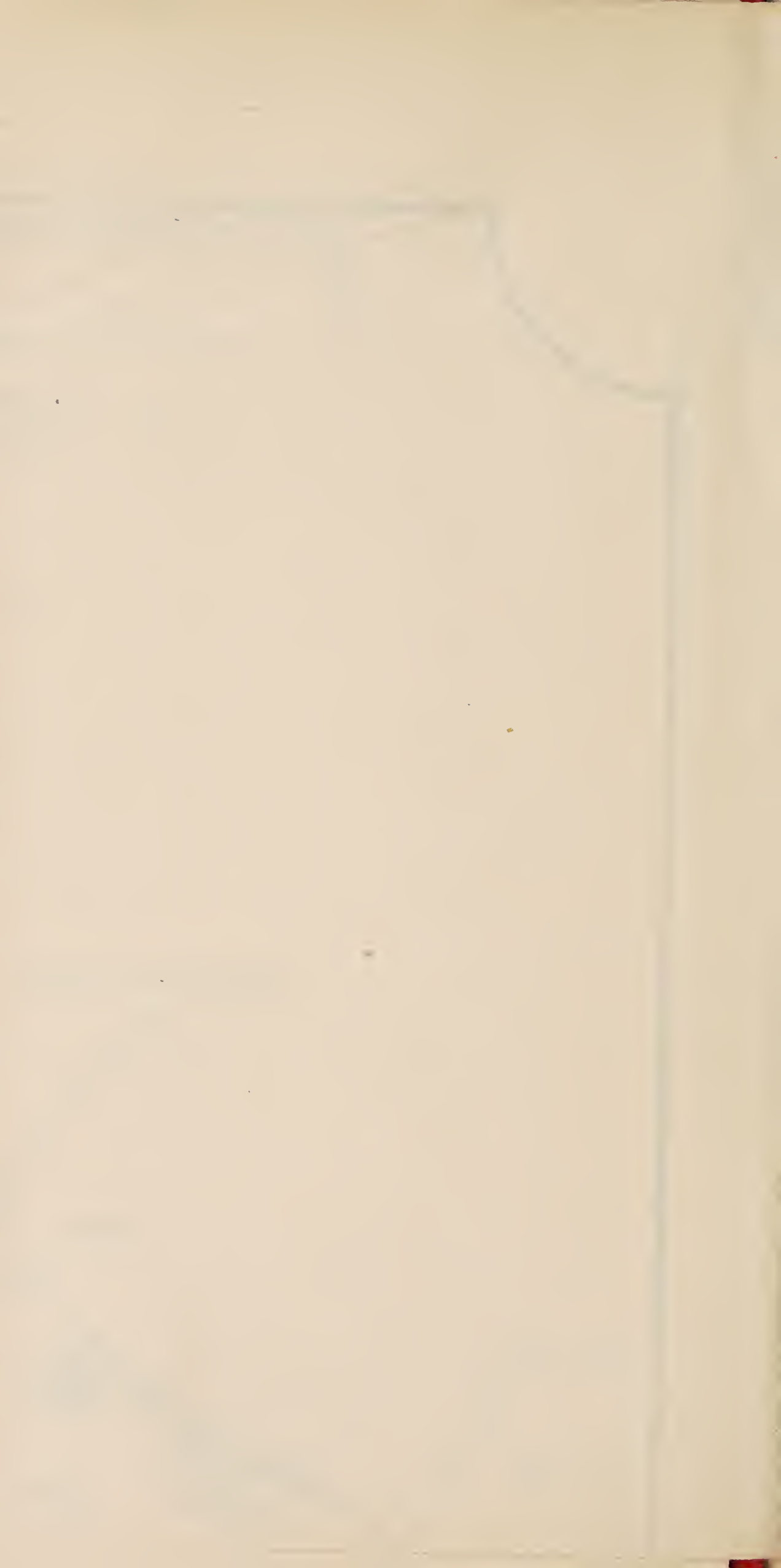
VENTILATING SHAFTS. V.S.
(in Well St. Chapel St. Clough Row, & Winsford Hill)

The Sewers were marked during 1919 on 25" to the Mile Ordnance Maps by the Surveyors Department. My tracings have been reduced by Messrs. Phillipson & Golder, to a 5 inches to the Mile Scale.

[The Sewers near WINSFORD BRIDGE are not connected with

THE FILTER BEDS.]

POSSIBLE SITE
MENTIONED IN CONNECTION
WITH THE W.U.D.C.S HOUSING
SCHEME.



percolates through the cinders in a manner which makes it impossible to take a sample of effluent for analysis; and leaves a deposit of solid matter on their surface. This is raked or scraped from time to time, and fresh cinders are periodically added on the surface, as the bed gradually sinks into the river. Occasionally, but not frequently, there are complaints of bad smells."

This description holds good to-day. There are seven of these cinder-beds on the Over side, and six on the Wharton side.

(ix.) Closet Accommodation.

(a) 1. CESSPOOL PRIVIES (in house property), 1039.

The Inspector, Mr. T. Hickson, reports that this number is a reduction of five on the corrected figures for last year (water-closets having been substituted to that extent).

My predecessor stated (1910 Report) that prior to 1896 the Sanitary Authority had encouraged privies and discouraged W.C's., under a fear of difficulty of sewage disposal. He describes the privies as follows: "The receptacle is sunk in the ground and is not confined to the area under the seat, but is prolonged under or through the side wall into the back yard. This part is covered with a stone or with timber. Its object is to afford means of access to the scavenger. Frequently it receives rain water from the privy roof or even from the yard surface, so an untrapped over-flow pipe is laid connecting it with the nearest sewer. These receptacles are locally called "cesspools," but this is a specialised use of that word."

These "cesspools" are emptied by a contractor every nine weeks, in the night, and the night-soil is employed as manure.

2. PAIL CLOSETS (including those used in schools and workshops), 500.

The use of vitriol has been discontinued as it spoils the clothes of the scavengers, the metal parts of the carts, and the manurial value of the night-soil, rendering the land too acid. The use of peat is continued as a deodorant. The pails have been emptied

at night, once a fortnight, under contract, and the manure deposited at three farms within the districts. If not required for immediate use, the manure is dumped, and the dump covered with soil. (The Council will in future scavenge these pail closets by directly employed labour).

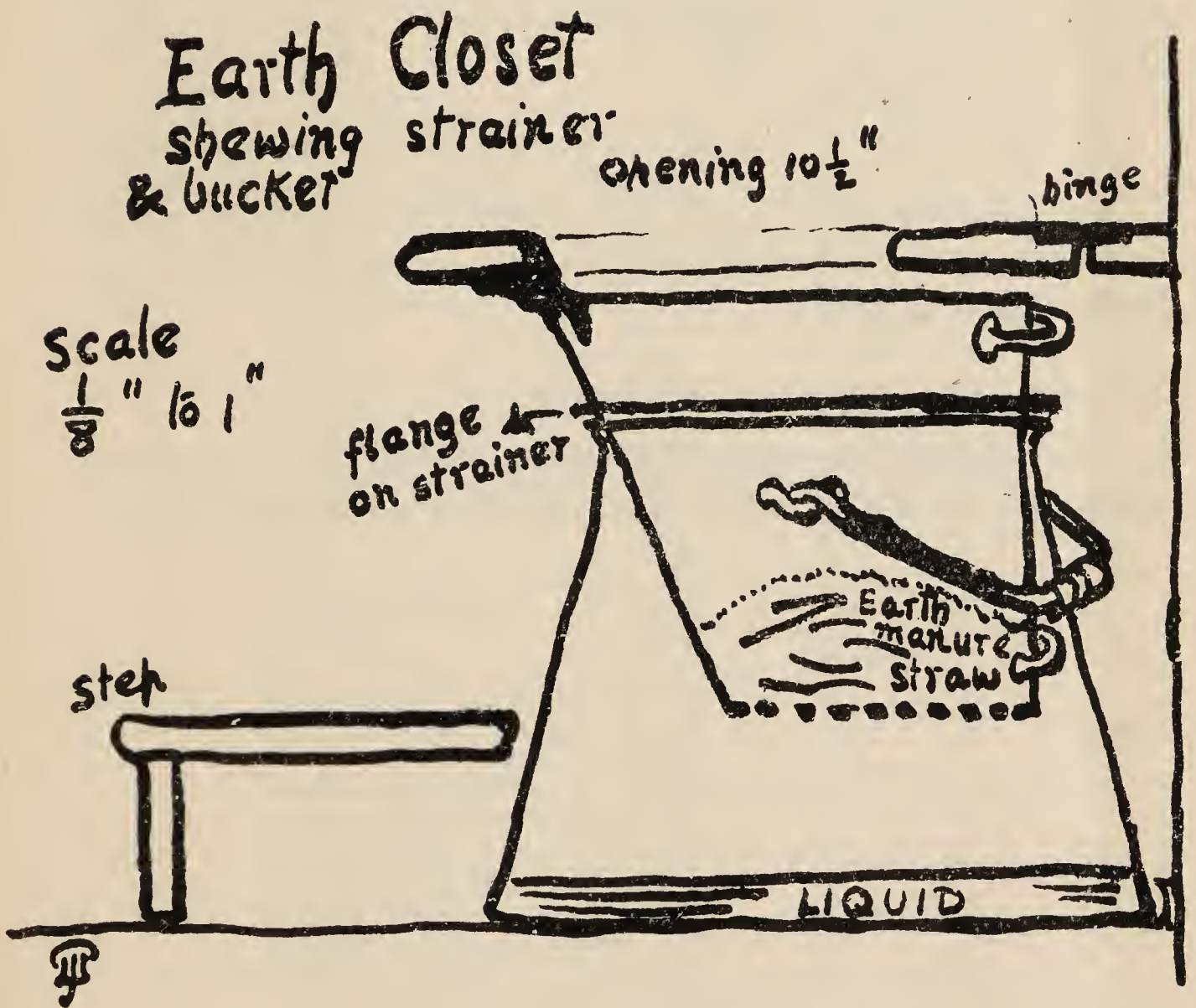
(b) WATER CLOSETS (including those at schools, offices, and factories) (Estimated), 1147.

The Inspector reports that there are no waste-water or hand flushed closets in the district.

The question of converting the cesspool privies to either W.C's or Pail Closets is before the Council. The inadequacy of the water supply for any considerable extension of water carriage, and the enormous cost of the ancillary alterations to the property, often involving from £40 to £100 per house, are considerations against the conversion in the larger number of cases. In these, the pail closet system could be installed for £2 or £3 per closet. On the other hand where the installation of the pedestal and connection with an existing sewer is all that is required to convert a cess-pool privy to a W.C., this course would be preferable.

In outlying parts of the district where cottage gardens are available to receive the manure, a well-managed earth closet is superior to the peat-pail. I have tested the following type which has been made by an ironmonger in the district to my specification, and after several years' experience I find it to be satisfactory, viz., a galvanised iron bucket with a wide base. A strainer with a narrow base fits into the bucket; straw, etc., is put in the strainer. Black, dry, garden soil is thrown upon the solid manurial matter which drops on the straw. The urine runs through the strainer. This closet, if emptied every day or two is odourless, as the surface of the strainer's contents consists simply of dry earth, through which the smell of the urine in the bucket below does not pass. The manurial value of this class of nightsoil, used fresh, is very high. For cabbages and a mulch for fruit trees the material gives excellent results. About $\frac{1}{4}$ of a rood of garden suffice to receive perpetually the nightsoil of a cottage scavenged on this principle.

The nitrifying organisms in the soil completely and rapidly convert the manure to soil; in about three months the conversion is quite complete. Provided the top layers, which alone contain the nitrifying organisms, are used, the soil retains all and disinfects all the bacterial contents of the manure, and the sub-soil water receives no contamination. A sketch section of the closet, scale $\frac{1}{8}$ inch to 1 inch is annexed.



(v.) Scavenging.

The Surveyor, Mr. Wilkinson, is in charge of this department.

The supervision of the work of scavenging closets and cesspools is an important duty of the sanitary department.

(a) HOUSE REFUSE.—The Inspector, Mr. T. Hickson, reports : Dry ashpits are emptied by the Council's staff, monthly.

Movable ashbins with lids have been provided in recent years, from 1910, at 1511 houses. The refuse is taken to waste land owned by the Council, or sanctioned for the purpose. The old " Dockyard " by the river, which had subsided, has been a suitable dump for the purpose, and has been considerably raised. The bins are emptied once a fortnight by the Council's staff. See also section viii.

(b) CLEANSING OF CLOSETS. See section iv. above (p. 15).

(c) CLEANSING OF CESSPOOLS.—There are 12 large cesspools (excluding the cesspool privies) in the district and these are emptied once a quarter.

(vi.) Sanitary Inspection of District.

(a) Tabular Statement of Premises visited, and defects or nuisances discovered, for the Year ended 31st December, 1919.

A Number and Nature of Inspections made.	Number of Inspections.	B Number of Notices served.	C Result of Service of Notices.	
		Informal.	Notices complied with.	Remain- ing in hand.
1. Dwelling Houses (general inspections)	40	12	11	1
2. Cellar Dwellings	—	—	—	—
3. Back-to-Back Houses (of which there are 12 in the District)...	24	—	—	—
4. Tents, Vans, Sheds, &c.	14	—	—	—
5. Courts, Yards, Passages... ..	52	7	7	—
6. Cesspool-privies (1039) and Peat Pails (500)	5603	420	412	8
7. Cesspools (12)	32	8	8	—
8. House Drainage	120	42	40	2
9. Ditches, Watercourses, &c.	6	4	4	—
10. Offensive Accumulations	12	11	10	1
11. The Keeping of Animals (P.H.A., 1875, S. 91 [3]) (Poultry, Rabbits, etc.	32	6	5	1
12. Offensive Trades—Tripedresser ...	10	1	1	—
13. (a) Slaughterhouses (Public) ...	—	—	—	—
„ (Private) (15)	97	18	12	6
(b) Other Places where Food is produced or sold (chip potato shops, &c.)	25	4	4	—
14. Piggeries (restrictions removed) ...	74	6	5	1
15. Dairies, Cowsheds, Milkshops (92)	370	180	168	12
16. (a) Factories	71	4	4	—
Salt	16			
Cabinet Maker (using power)	1			
Clothing	2			
Boat Builder	1			
Brick Maker (machine).	1			
Corn Mill (gas engines)	2			
(water mill)...	1			
Fustian Cutting	5			
Engine and Boiler Maker	1			
Iron Foundry	1			
Laundry (steam)	1			
Mineral Water	1			
Motor Car Engine Makers	2			
Silica	1			
Total	36			

A Number and Nature of Inspections made.	Number of Inspections.	B Number of Notices served.	C Result of Service of Notices.	
		Informal.	Notices complied with.	Remain- ing in hand.
(b) Workshops	135	8	6	2
Boot and Clog Makers... 10				
Cloggers 8				
Bottling Stores 2				
Bread Bakers 16				
Brick Makers (hand) ... 2				
Builders 8				
Cabinet Maker (not using power) 1				
Coach Builder 1				
Confectioners 5				
Cycle Repairer 1				
Dressmakers... .. 12				
Saddlers 2				
Herb-beer Maker 1				
Ice Cream Maker 1				
Joiners 4				
Laundries (hand)... .. 2				
Miliners 6				
Picture Framers 2				
Printers... .. 2				
Rope Walk 1				
Sausage Makers 7				
Smiths 4				
Stone Masons 3				
Wheelwright 1				
Tripedresser 1				
Tinsmith 1				
Tarpaulin Maker 1				
Total 105				
(c) Workplaces (12 Quays, &c.) ...	14	2	2	—
(d) Outworkers' Premises (1 Clothing)	28	—	—	—
17. Bakehouses (Overground) (15) ...	140	6	6	—
„ (Underground) (1) ...	16	—	—	—
18. Common Lodging Houses (1 in Over containing 5 beds) ...	6	—	—	—
19. Houses let in Lodgings	—	—	—	—
20. Smoke Observations	6	6	6	—
21. Canal Boats (1 only on Register. All others, numbering about 200, registered under Merchant Shipping Acts)	4	1	1	—
22. Infectious Disease Inquiries and Revisits... ..	530	28	28	—
23. Miscellaneous (including Visits re Overcrowding, &c.)	2640	155	50	105
Total	10101	929	790	139

(Signed) THOMAS HICKSON.

NOTE.—No Statutory Notices were served.

Report of the Sanitary Inspector, Mr. Thomas Hickson.

I respectfully submit my Annual Report embodying a summary of the work done in the Sanitary Department of the Council for the year ending the 31st December, 1919.

(The sections of the Inspector's Report dealing with closets and scavenging are incorporated with sections iv. and v. above). (pp. 15—17).

House Drains.

Six houses have been provided with new drains, including modern gullies and other requisities, and properly connected with the sewers. At 42 houses, nuisances arising from defective or blocked drains have been abated. The whole of the sewers and sewerage works are controlled by the surveyor. No new sewers or works of extension have been carried out during 1919.

Abatement of Nuisances.

929 formal and informal notices have been issued in connection with the abatement and prevention of nuisances; and generally compliance with requirements has been secured without further action.

Overcrowding.

For the purpose of ascertaining the exact conditions as to overcrowding an inspection of the whole District, involving over 2,000 visits to houses was carried out during April and May.

(The facts ascertained by this inspection are embodied below). (pp. 6—9 of Housing Report).

Infectious Disease.

All cases of infectious disease have received personal attention immediately on being notified. The infected house has been visited, the circumstances affecting the case investigated, and precautionary measures at once adopted. Whenever possible the patient has been promptly removed to hospital; when removal has not been practical, measures of isolation have been carried out, and a constant supervision maintained. On the removal, recovery, or death of a patient, the premises, &c., have been disinfected. 530 visits and inspections have been made under this head.

Disinfecting.

Seventy houses where infectious disease has occurred have been disinfected. Three houses where dirty conditions prevailed were disinfected and cleansed. Six lots of bedding, clothing, &c., have been dealt with at the steam disinfector, Davenham Hospital, and two lots of bedding, &c., have been destroyed, all after deaths from Phthisis. All schools in the district have been disinfected during the Easter, the Summer, and the Christmas holidays. Also special disinfection was carried out at all schools during the influenza epidemic in the early spring.

Housing Inspections.

Five houses have been dealt with under the Housing Regulations during 1919. The sanitary improvements secured, along with other matters, include the conversion of privies to water-closets, the paving of rear yards, making smooth impervious surfaces, new drains, with modern gullies and other requisites attached, the fixing of slopstones, &c. The recent war, with the rigid restrictions enforced, made work under this head a practical impossibility. Many of the difficulties which then obtained, continue to exist; and until material and labour are more plentiful, and more easy of access for this branch of work, sanitary improvements on an extensive scale are ruled out.

Dairies and Cowsheds.

Notices to cleanse and limewash premises have been served on owners or occupiers twice during the year, and this work on the whole has been carried out satisfactorily. There have been no extensive improvements or structural alterations completed in connection with these buildings during the year. Dr. Picton has accompanied me several times on visits of inspection to these places; and any matters of default relating to the cleanliness of cattle, buildings, or other infringements have been remedied.

Factories and Workshops.

There are 36 factories (an addition of one clothing factory), and 117 workshops and workplaces in the district. The conditions as to cleanliness, ventilation, sanitary conveniences, and means of escape in case of fire, especially relating to the

larger factories are satisfactory. At two Clothing Factories, also departments connected with some of the Salt Factories, and five Fustian Cutting Factories, practically only female labour is employed. There is seldom any cause of complaint found on inspecting these places. Consistent cleanliness is observed, and efficient sanitary conveniences, with due regard to privacy, are provided. The Salt Packing Factory at Meadow Bank, especially, is a model of up-to-date sanitary arrangements. One matter was referred by the Female Factory Inspector during the year, and was remedied without difficulty.

Home Work.

Messrs. Crook & Sons' Clothing Factory, Siddorn Street, Over, is the only one giving out home work. Two lists, containing three names on each list, have been received. The premises where the work is carried on are satisfactory. No cases of infectious disease have been notified, and no overcrowding discovered in connection with these homes.

Canal Boats.

There is only one canal boat on the Register, being of the wide boat class. Three inspections were made and one defect discovered, viz., deck leaking over after cabin. This was remedied on request. There is a large number of steamers and barges owned by the several salt firms trading between Winsford and the Ports of Liverpool and Manchester. These craft are generally repaired at Winsford ; but the boats are registered under the Merchants Shipping Acts, and do not come under the supervision of the Local Authority.

Common Lodging Houses.

There is only one on the Register. The premises are kept under constant supervision, are well conducted, but seldom used.

Slaughter Houses.

There are 15 private slaughter-houses in the district, 2 are registered and 12 licensed, 2 disused. The licenses are renewed annually. No new licenses have been issued during the year. One application for renewal of license has been refused.

Dr. Picton has accompanied me on visits of inspection to all these places, and matters of infringement of the regulations noted at these visits were remedied. The water supply and drainage at all the premises are excellent.

Vans used as Dwellings.

Fourteen of the vans have been visited and inspected at different times and in various places. No irregularities, no infectious disease, and no cases of overcrowding were discovered at any of the vans.

A summary of all matters dealt with, is found under the Tabular Statement above (pp. 19 & 20).

THOS. HICKSON, A.R. San. I.,

Inspector.

March, 1920.

(vii.) Premises and Occupations which can be controlled by Bye-laws or Regulations.

There is one common lodging house, which is well conducted. There is one tripe dresser. His premises have been inspected 10 times, and are satisfactory. There are 3 fried fish shops in Over, and 3 in Wharton. They are satisfactorily conducted.

(viii.) Other Sanitary conditions requiring notice.

There is a great deal of waste land about the Winsford cottages that might easily be cultivated garden ground. The custom of using the partially burned coal from the salt works to supplement the household supplies, accounts for the unusual quantities of domestic ashes that have to be disposed of. The bins and ash pits are sometimes inadequate to contain them, and the ashes, mixed with other refuse, often litter the ground in the neighbourhood of the houses. A real effort should be made by the active associations in the district which have the well-being of the people at heart, and by owners of property to encourage the inhabitants to turn the waste land in the immediate vicinity of houses into gardens. Flower shows and prizes do more than leaflets and exhortations. The better provision of ash bins, which however are now expensive, is also needed, and strict insistence on their use.

Further, as I wrote in my report for April, 1919, "*Salvage* is a matter which I think deserves the serious consideration of the Council, both in connection with public health and as a business proposition. A great deal of land around much of the smaller property, which ought to be cultivated, and productive garden ground is occupied by miscellaneous refuse, principally, no doubt, fairly innocuous ashes, but still refuse, dusty, dirty, disgraceful, demoralising, as the surroundings of a house in which children are born and bred. I am told that old tins when collected in sufficient quantities command a price which rather more than covers the cost of collection, as the solder can be melted out, as the tins can be de-tinned, and as even the iron residue is of some value. I am told that paper, rags, flint glass, old leather and so forth, similarly command a market value, if only they be sorted apart from the rest of the rubbish. On previous occasions I have mentioned the desirability of separating the food waste from the ashes, or rather of never mixing them, but of using waste food as pig or poultry food. With a view to considering whether any simple steps could be taken to obviate the untidy and insanitary disposal of rubbish, and to utilise any value it may possess, it occurs to me that a small Committee of say three persons might well be appointed by the Council to investigate the subject and report to the Council."

Such a Committee was in fact appointed in May, 1919, by the District Council, but has not yet, I believe, had an opportunity of meeting.

(ix.) Schools.

List of Schools in the District :—

		Estimated No. of Scholars.
ELEMENTARY—	1. St. John's (C. of E.) Delamere Street ...	272
	2. Whitegate (C. of E.) ...	83
	3. Darnhall Endowed (Undenom.) ...	145
	4. Dierden Street (C. of E.) Infants only ...	64
	5. Wharton (C. of E.) School Rd. } Boys ...	240
	Girls ...	220
	6. Wharton (C. of E.) Infants, Wharton Rd.	110
	7. Over High Street Council School ...	626

8. Over Meadow Bank Council School	... 137
9. Gladstone Street (C. of E.) School	... 270
SECONDARY—The Verdin Technical School, High Street	... 170

All the public elementary schools have a good water supply.

Water-closets are provided in all except Whitegate and Darnhall, which have peat-pails.

The Meadow Bank School sewage is treated on a special filter bed with outfall to the river.

The sanitary condition of the schools is considered satisfactory.

Schools closed during 1919 on account of epidemics.

St. John's, from 25th February to 10th March.	Influenza.
Whitegate	„ „ „ „ „
Darnhall, from 10th March to 22nd March.	„
Meadow Bank, from 10th March to 29th March.	„

There was a small outbreak of scarlet fever in October in connection with St. John's School.

III. FOOD.

(a) MILK SUPPLY. Cows are kept within the district at 92 farms or small holdings. There are no dairies or milkshops apart from these. The cowsheds have been lime-washed twice a year, and 370 inspections made.

As was pointed out in the Inspector's Report in 1911, "Some of the older buildings are of faulty construction and very difficult to keep clean." Since that date the shippens at two of the largest farms have been remodelled, but the statement is still true of several of the smaller farms.

Dr. Garstang repeatedly pointed out that in Winsford it is out of the power of the M.O.H. to certify the wholesomeness of the milk, as there is no local action under the Food and Drugs Act, and milk is not sent to any great extent to Manchester, which in some other districts is a source of information about

tuberculous milk. In one case, however, a tuberculous cow was traced through that channel.

No notifications of cases of suspected tuberculosis in cattle were received by the Sanitary Authority from the police.

The milk supply has been good. In April it was "abundant though relatively dear: mothers and older children were getting fair supplies." In July, the supply was reported to be "satisfactory, *i.e.*, easy to obtain and the price, 6d. per quart, was popular." In November, milk was sold by different farmers at 10d., 9d., and 8d. per quart.

Milk (Mothers and Children) Order, 1918.—No action was required for the milk for mothers or children. Enquiries in respect of the need for this were continuously made; but no cases in which the need was not promptly met otherwise were brought to light.

(b) Other Foods—

i. *Unsound Food and Food Inspection.*—The Food Control Authority necessarily bore the responsibility for the soundness of the food which it distributed. One consignment of frozen meat was condemned by the Sanitary Inspector and destroyed.

ii. *The sanitary conditions at premises where foods are manufactured, prepared, stored or exposed for sale* is satisfactory as far as known.

iii. *Bakehouses* of which there are 16, including one underground, have been inspected 156 times and were generally found satisfactory.

iv. *Meat Inspection and Disease in Meat.*—See i. above.

v. *Slaughter-houses.*—There were 15 scattered about the town. In December after inspecting them all, I reported to the Council—"If one were building the town afresh one would never think of placing the slaughter-houses hap-hazard amongst the dwelling-houses. Some of the present ones are in the back-yards of ordinary cottage or shop premises, amongst rows of similar

dwellings. Others are better isolated, but structurally undesirable.—On the other hand, few appeared to be badly conducted, and the majority gave a rather striking evidence of painstaking cleanliness.—Most of the firms failed to carry out the duty of removing offal in covered, galvanised-iron receptacles. There were three registered slaughter-houses (the buildings having been in use prior to 1875); eleven were licensed in December, 1919; and one license was refused.

vi. No public abattoir exists.

vii. There are no arrangements for the inspection of meat at the time of slaughter, other than the visits of the Sanitary Inspector. These numbered 97.

viii. No action under Section 117 of the Public Health Act, 1875 (seizure of unsound food exposed for sale) was taken.

Carcasses and parts of carcasses condemned for Tuberculosis.—Nil.

IV. PREVALENCE OF AND CONTROL OVER INFECTIOUS DISEASES.

i. Infectious Diseases generally.

Principal Zymotic Diseases :—							Cases.	Deaths.		
Smallpox	...	...	...	...	...	...	—	...	...	—
Measles	...	...	...	...	...	...	25	...	...	—
Scarlet Fever	...	...	...	...	...	...	10	...	...	—
Diphtheria	...	...	...	...	...	...	24	...	...	2
Whooping Cough	...	...	...	...	...	...	Unknown	...	...	1
Typhoid Fever	...	...	...	...	...	...	1	...	...	—
Diarrhoea (under 2 years of age)	...	...	...	...	...	...	Unknown	...	...	1
Total Deaths from Principal Zymotic Diseases								...	...	4
Death Rate from Principal Zymotic Diseases :—										
For WINSFORD							...	...	...	0·34
For Administrative County of Cheshire							...	...	...	0·36

Age Incidence and Distribution of Cases of Notifiable Disease.

	All ages.	Under 1.	1 to 5.	5 to 15.	15 to 25.	25 to 45.	45 to 65.	65 & upwards.	Over.	Wharton.	Removed to Hospital.
Diphtheria	24	1	8	9	5	1	..	..	14	10	21
Erysipelas	3	..	..	..	..	1	2	..	2	1	..
Scarlet Fever	10	..	7	3	..	..	..	..	10	11	8
Enteric	1	..	..	..	1	..	..	..	1	..	1
Phthisis	11	..	..	3	2	5	1	..	9	2	..
Other Tuberculous Diseases	3	..	1	..	1	1	..	..	3	..	..
Ophthalmia	2	2	..	..	..	..	..	..	2	..	..
Measles	25	1	12	11	1	..	..	..	14	11	..
Poliomelitis and Cerebro-Spinal Fev.	1	..	1	..	..	..	..	..	..	1	..
Malaria	6	..	..	..	4	2	..	..	3	3	..
Pneumonia	45	1	1	1	6	25	11	..	31	14	7

Monthly Incidence of Diseases.

	Diphtheria.	Scarlet Fever.	Enteric.	Erysipelas.	Ophthalmia.	Measles.	Phthisis.	Poliomelitis & Cerebro-Spinal Fever.	Malaria.	Pneumonia.	Other Tuberculous Diseases
January	3	..	..	..	..	2	..	..	..	..	..
February .....	..	..	..	..	..	4	2	1	..	..	..
March .....	..	1	..	..	..	4	1	..	..	34	..
April .....	..	1	..	..	..	8	3	..	..	8	1
May .....	..	..	..	..	1	2	1	..	1	..	..
June .....	..	1	..	..	..	2	1	..	..	..	1
July	4	..	..	1	..	1	..	..	4	..	..
August	5	..	..	1	..	..	..	..	..	..	..
September	1	..	..	..	..	..	1	1	..	2	..
October .....	..	5	..	1	..	..	1	..	1	1	..
November	2	1	..	1	1	2	..	..	..	..	2
December	9	1	1	..	..	..	..	..	..	..	..

Measles.

Twenty-three cases occurred between January and July, and two in November. None died.

Eucalyptus Oil is provided by the Council for anointing children exposed to infection, and the general practitioners of

the neighbourhood concur in its use. The Eucalyptus bottles bear the following label :—

“ WINSFORD URBAN DISTRICT COUNCIL.
EUCALYPTUS OIL.

Children exposed to infection should be rubbed with the Oil all over the body and limbs night and morning. They should be washed all over with soap and warm water, if possible, every day.

It is a good thing to wash their mouths and throats twice a day with the following: 5 drops of “Solution of Potassium Permanganate” in an egg-cup full of water.

The above instructions apply to children who have not got Measles, but are exposed to its infection.

If your child has actually got Measles, consult your doctor. If he orders the Eucalyptus Oil to be used the Council will supply it free.

LIONEL JAS. PICTON, M.O.H.”

The following Leaflet on *Measles* was distributed :—

Every care should be taken to prevent Children from catching Measles.

Almost 10,000 children die every year in England and Wales from Measles. Over 7,000 of these are under five years of age.

Measles may lead to convulsions, consumption, bronchitis, deafness, to sore mouths and noses and swollen tonsils and adenoids (which are glands at the back of the throat and nose) and other swollen glands, and to discharging ears. There may be other complications. The swollen glands may become chronic ; and consumption germs get a foothold in them. Later in life these may spread and cause consumption.

At the beginning Measles is like an ordinary heavy cold. The rash comes out about 4 days later.

During the 4 days before the rash comes out Measles is very infectious. So when Measles is about, all children with heavy colds in the head, red and running eyes, sneezing and running at the nose, are quite likely beginning with measles,—if they have not had it before. They should be kept in bed apart from other children to see if a rash comes on. The room should be well aired and the window and bed should be free from hangings. If children in such a state are allowed out, at school, picture palace, church, or Sunday school, it is easy to understand how they will spread the disease. For the discharges from the nose and eyes and mouth (scattered by coughing, sneezing, etc.,) are infectious. The mouth, eyes and nose should be kept clean. Clean rag which can be burned is better than handkerchiefs.

If the illness prove to be measles a doctor should be called in, as complications may set in and cause death or severe illness.

The person looking after the patient should be careful to wash her hands and change apron or overall before attending to other children.

After the illness is over, all clothing and bed-linen should be washed, and the room thoroughly scrubbed.

Children attacked with measles should be kept from school for four weeks. During that time they should not mix with other children.

The Medical Officer of Health must at once be notified of any known or suspected cases of Measles. The parent should also send word to the Head Teacher to explain the absence of the child from school. Official instructions as to which of the other children should be kept from school should be strictly carried out; and those children should not be allowed to attend Sunday school or enter neighbours' houses.

Winsford Urban District Council, Health Office, Market Place, Winsford.	LIONEL JAS. PICTON, Medical Officer of Health.
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Each case of Measles has been visited, and an improved standard of care has become popular. In my report for December I advised the Council that "notification of Measles has had a pronounced indirect result in reducing the severity and death rate from the disease. It has made parents regard it as a more serious matter, the leaflets and the Inspector's visits have opened their eyes to the many evils that flow from neglected Measles. As a result the doctor has been called in, and the patients kept in bed under his orders. I therefore advise that in Winsford the obligation to notify Measles should be continued"—which, in fact, was done.

Scarlet Fever—The ten cases were in Over, and five were in October, a small outbreak in connection with St. John's Schools. There were no "return" cases.

Diphtheria—Of the 24 cases, 21 occurred in the latter half of the year, both parishes being affected. Two patients died.

A clinically urgent laryngeal case in January gave a negative swab, as did another of the three cases in that month.

The July outbreak, four cases, arose from a "carrier" a child of seven who had had Diphtheria some months previously. The other three, though clinically severe cases were all reported negative.

The December outbreak, nine cases, was at the time of the general prevalence of the disease throughout the country. No connecting link between the cases was discovered. Swabs were taken in seven cases and proved positive in six.

Antitoxin is available at any hour to any practitioner without charge. Patients however are not infrequently moved to the Isolation Hospital prior to its administration. The matter lies in the discretion of the doctor. The Council pays doctors for taking swabs of "contacts."

Whooping-cough—One death occurred.

Enteric Fever.

In the only case, the doctor had, for some days prior to notification, taken the precaution of having all the discharges burned.

Diarrhoea in Children under Two.

One death. Winsford on the whole has been very free from this disease.

Acute Infective Cerebro-spinal Disease.

1919. Report on I. Encephalitis Lethargica; II. Poli-encephalitis; III. Acute Poliomyelitis; IV. Cerebro-spinal Fever; made to Dr. Reece, Medical Officer, Ministry of Health, March 2nd, 1920.

Total Notified.	Aged between 5 & 10.	Aged between 20 & 30.
III. Acute Poliomyelitis 1	1 Female recovered with permanent palsy of one or more groups of muscles.	
IV. Cerebro-spinal Fever 1		1 Female died. Dr. Fletcher, of 6 Harley St. reported after examining the brain — "In my opinion this was in all probability a case of cerebro-spinal meningitis (meningococcal)"

The cerebro-spinal fever patient died in the Albert Infirmary. The measures taken to prevent the spread of infection consisted in the use of a collunarium* of Potassium Permanganate by the nursing staff.

Pneumonia.

There were 45 cases of notified Pneumonia, 25 being in persons between the ages of 25 and 45. There were three deaths certified as being from Pneumonia, 40 deaths certified as being from Influenza. The first 34 Pneumonia cases were notified in March, and eight in April.

The Council, when the need arises, engages one or more trained nurses to nurse cases of Pneumonia under the direction of the practitioners in attendance. During the height of the epidemic each practitioner was provided with a nurse.

The Council provides oxygen free of charge for the use of any practitioner in treating Pneumonia, and also has purchased a Haldane oxygen administration apparatus, which it loans to doctors.

Malaria.

Six cases were notified, in all of which the infection was contracted overseas, the patients being service men.

Dysentery and Trench Fever did not occur.

Bacteriological aids to Diagnosis are provided by the Council, without any rigid limitation in respect of the nature of the disease [*re*: Swabs, see "Diphtheria"]. Outfits for throat swabs, blood tests, etc., are provided. Histological examination of tissues for malignant disease is also provided.

The arrangements for the Swabs, etc. being examined are with the Lister Institute, and the Laboratory of Public Health, York Place, Manchester.

Diphtheria "Contacts" (see "Diphtheria." p. 31).

Scarlet Fever "Contacts."

In the case of an outbreak, I personally visit the school or houses mainly affected.

Arrangements for Isolation.—37 patients were removed to the Isolation Hospital for Infectious Diseases, Davenham (34 beds). This isolation hospital takes cases*from Northwich Rural, Northwich Urban, and Middlewich Urban Districts as well as Winsford, a total population of about 60,000; and is under the control of a Joint Board. A motor ambulance has recently been provided. The old buildings at Marbury are reserved for Smallpox. (See last column of first table on page 29).

In a few cases of notifiable disease, isolation was satisfactorily arranged at home.

Arrangements for Disinfection.—(See Inspector's Report on pages 21 & 22).

The method of disinfection of buildings employed is by spraying with *Cyllin*.

Return Cases, Carrier Cases.—(See Scarlet Fever and Diphtheria above).

Non-notifiable Acute Infectious Diseases.—Whooping Cough and Diarrhœa each contributed a single death, which does not suggest any great prevalence; nor did the information from the schools.

Influenza.

A tabular report on the whole epidemic, from July 6th, 1918, to April 5th, 1919, was included in my 1918 annual report.

In that period of nine months there were 53 deaths (including 8 in the Isolation Hospital, of which 30 were of males, and 23 of females).

Of the 53 only 8 were genuine salt workers, and 3 of the 8 had contributory causes of death. This is a relatively low total considering the preponderance of salt workers in the District. In my report to the Council for February, 1919, in emphasising the importance of air and light in dwellings, I pointed out that "cold air breathed through the nostrils acts as a tonic to the membrane lining them. This then exudes a certain amount of moisture which carries away and prevents the development of

infecting germs. On the same ground salt and water is advocated . . . as a preventative nasal wash. In this connection it is of some interest to note the smallness of the death-rate, amongst workers in salt, from Influenza and Pneumonia."

A few sporadic cases of Influenza occurred in the later months of the year.

Influenza mortality in 1919 alone.—There were 40 deaths.

Action taken in regard to Influenza.—Vaccines were provided by the Council, and were used considerably by two of the practitioners, chiefly in the treatment of cases, and not much for prevention.

For schools closed on account of Influenza see ii., ix., above (page 26).

The arrangements made by the Council for nursing applied to Influenza as well as Pneumonia. See "Pneumonia" above (page 33).

The following leaflet was issued :—

“ Influenza.

The latest returns for England and Wales (with few exceptions which may be mere chance occurrences) do not at present shew any sudden increase, either of deaths attributed to influenza, or of notifications of infectious pneumonia. The Ministry of Health have, however, kept under close observation records of epidemic sickness at home and abroad, and in view of the almost simultaneous increase of influenza in great American cities, in Europe (Poland), and also in the Far East (Japan), the Ministry consider that there is considerable probability of another wave of influenza developing in this country at an early date. This may be due to direct introduction by infected persons arriving from abroad, or to the independent development of the epidemic from the influenza usually present.

In these circumstances the following precautionary advice is issued for public guidance :—

Isolation.—Influenza is particularly infectious when it is just beginning, indeed just before the person feels thoroughly ill, and

is still able to work and to mix with his fellow men. Almost everybody, therefore, is exposed to infection when there is an epidemic. But the spread of the epidemic would be reduced if every person suffering from a FEVERISH cold, whether with a cold in the head or not, would stay at home (and in bed) for a day or two. The epidemic would then spread more slowly, which is likely to diminish the risk that successive cases will become increasingly severe.

Prevention.—Influenza may be guarded against in this way—

(a) Keep “fit.” Prolonged mental strain and over-fatigue favour infection. Badly cooked, insufficient and irregular meals favour infection. Alcoholic excess favours infection.

The occurrence of epidemic catarrhs would be greatly decreased by continuous flushing with air of each occupied and living room. This implies the need for enough warm clothing, especially for people with sedentary work, and for children and old people. Overclothing during exercise is to be avoided. A great authority has pointed out “the very great importance of breathing cool open air, and of exercise, which amplifies the breathing in promoting the defensive mechanism of the lining of the lungs, for many people unwisely seek to avoid colds by keeping themselves and children in rooms which are overwarm and humid.”

Crowded meetings, hot rooms and stuffy railway carriages favour infection.

Hold a handkerchief, or paper, or rag, in front of mouth or nose in sneezing or coughing. It is the minute drops so expelled that carry the infection of “colds” to other people.

Dirty living rooms, dirty persons, dirty working rooms, favour infection. Wet cleansing of rooms is important.

(N.B.—Disinfection by fumigation after Influenza is not necessary).

(b) **Gargling** with salt and Condyl’s fluid is advised. Use $\frac{1}{2}$ a teaspoonful of salt in a glass of water and enough Condyl’s fluid or permanganate of potash to give it a pink colour. Also a little

may be very gently breathed up (not violently snuffed up) into the nose, and spat out through the mouth.

(c) **Vaccination.**—A vaccine against Influenza has been prepared by the Ministry of Health. A similar vaccine has been used in the Army. The vaccine is supplied free of charge to any Doctor by the M.O.H. Any person who wishes to be vaccinated against Influenza should apply to his own Doctor.

(N.B.—The purpose of the vaccine is prevention, and therefore it should be used before an epidemic occurs).

It cannot be guaranteed that the vaccine will protect from attack, but there is reason to expect that if an attack occur, there will be less risk of complications.

Cure (a) Go to bed and send for the Doctor.

(b) Don't go to meeting places and entertainments for a week after your temperature has become normal.

(c) Recovery should be fully established before return to work. Chill and over exertion during convalescence are fruitful of evil consequences.

Nursing Influenza (a) If possible the patient should have a separate room, airy and well ventilated.

(b) Avoid inhaling his breath, especially when he coughs.

(c) Wash your hands after attending to him before doing other work or eating.

Employers.—Workers who are obviously ill should be sent or taken home at once. Their continuance at work is bad for them and dangerous to others.

LIONEL JAS. PICTON,

Medical Officer of Health.

Tuberculosis.

Number of cases on books, 1st January, 1919	..	46
Number of cases notified in 1919—		
Tuberculosis of Lungs	.. ..	11
Other Tuberculous disease	.. ..	2
		— 14
	Total ..	.. 60
Deaths from Tuberculosis—		
From Tuberculosis of Lungs (including four male and two female)	.. ..	6
From other Tuberculous disease (all female)		3
		— 9
Number remaining on the books	.. ..	51

I have no reason to doubt that the notifications represent the total arising in Winsford diagnosed with certainty. No doubt the patients at the Albert Infirmary from outside the district [22 surgical tuberculosis in-patients, and 48 (mostly pulmonary) out-patients at the Dispensary] are not uniformly notified to this Department.

County Council Tuberculosis Dispensary; see I. ii. (e) page 8.

The housing conditions in which many of the patients with tuberculosis live are quite unsuitable, and must be a contributory factor in bringing about the disease.

The Council possesses two shelters which it lends.

Venereal Diseases: *County Council Centre*—see I. ii. (e) page 9.

Smallpox.

No vaccinations have been performed by me under the Public Health (Smallpox Prevention) Regulations, 1917.

Vaccination, 1919, by Public Vaccinator.

Number of Births Registered...	... ..	228
Successfully Vaccinated	... ..	39
Declarations of Conscientious Objection	... ..	169
Dead—Unvaccinated	... ..	14
Postponed	... ..	1
Not accounted for	... ..	*5

*As this return is for the year 1919, there are a few cases not yet in default.

Anthrax, no cases.

Rabies, no cases.

V. MATERNITY AND CHILD WELFARE.

The County Council is the supervising authority.

1. *Midwives.*

There are two district nurses holding the C.M.B. These are financed by the Winsford and Moulton Nursing Association, to which the Council contributes; and there are six other midwives who were in practice in July, 1901, on the County Council Register.

Several more women holding the C.M.B. are required in the district to practise as monthly nurses, and their gradual introduction is to be desired.

2. *General arrangements for attending to the health of pregnant women and nursing mothers and children under five years of age.*

A whole time health visitor is appointed who visits mothers at the termination of the lying-in period, and regularly afterwards. She keeps children under observation till they are five years of age. Her visits are almost uniformly well received, as she is well-known and generally popular in the neighbourhood.

My report of her work in April exemplifies its nature:—
 “Nurse Joynson is visiting at the rate of 12 visits a day, including, for the purpose of that average, Saturday and Sunday and also Friday, in the afternoon of which she is occupied at the Centre. A “visit” may consume a good deal of time. If it occur at a suitable moment the nurse often takes the opportunity to give an object lesson by washing the baby. . . .
 At the present time (April, 1919) there are in Winsford some 220 children under one year old. Of these babies, 208 are breast-fed or have been so. Bottle-fed babies are 12 only . . . (of course some of those naturally fed receive an artificial supplementary source of supply). The high price of cows milk, and of feeding bottles and indiarubber teats conspire, with the advice given at the Centre and by the health visitor, to bring about this happy state of affairs.”

This matter of breast feeding is very carefully investigated and insisted on by the health visitor, and she reports to me month by month.

It is a part of her work to secure the attendance of children at the Centre in which she has been successful. In August I reported, "The Child-welfare Centre seems to have come to stay; but practically nothing, or very little, is done in the way of advising pregnant women. They prefer to seek advice from their doctors privately." The remarks of the Medical Officer of the Centre on this head (page 43) deserve the consideration of the supervising authority of midwives.

Notifications of Births.

Notified by Doctors	...	...	...	...	...	...	...	109
„ „ Midwives	...	...	...	...	...	...	...	128
								<hr/>
Total	...	...	...	...	...	...	...	237
								<hr/>
Number of Children in the town under 1 year	...	...						210
Children over 1 year and under 5 years	...	...	...					680
								<hr/>
								890
								<hr/>

Visits made by the Health Visitor.

Children under 1 year	...	...	...	...	...	...	...	1,289
Children from 1 year to 5 years	...	...	...	...	...	...	...	2,720

Maternity and Child Welfare Centre.

The permanent home of the Centre in the room behind the Free Library (the property of the Council) was opened in November, 1918.

Report of the Medical Officer of the Centre, Dr. Deans, D.P.H. :—

LYTHE HOUSE,
WINSFORD.

CHESHIRE.

24th February, 1920.

TO THE MEDICAL OFFICER OF HEALTH

FOR THE WINSFORD URBAN DISTRICT.

Sir,—I beg to present my annual report on the work of the Maternity and Child Welfare Centre for the year 1919.

The Centre was open every Friday afternoon during the year, with the exception of December 26th (Boxing Day), and April 18th (Good Friday).

I.—CHILD WELFARE SECTION.

Each child at each visit was stripped, and weighed, and then examined by the M.O. After redressing, tea, bread and butter and milk were provided for the mothers and children. Each week a full return of the names and addresses of all the children who had attended, together with any hygienic or dietetic advice given, was sent to the M.O.H. ; and a similar list containing the names of his patients was sent to each medical man in the town.

The following is a statistical record of the work :—

Number of times the Centre was open	... ..	50
Total number of children on the register during the year	... ..	241
Total number of attendances	... ..	702
Average weekly attendance	... ..	14
Number of new cases under 12 months of age at first visit	... ..	79
Number of new cases over 12 months of age at first visit		40
Of the new cases under 12 months :—		
Number being (or had been) entirely breast fed	...	46
“ “ “ partly breast & partly bottle fed	... ..	18
“ “ “ entirely bottle fed	...	15
Number of children in whom diseased conditions were found	... ..	78
The diseased conditions and their frequency were :—		
Bronchitis	... ..	19
Impetigo and other skin diseases	... ..	15
Diarrhœa	... ..	11
Tonsils and/or Adenoids...	... ..	6
Balanitis (requiring circumcision)	... ..	5
Hernia	... ..	4
Rickets (one case with lateral curvative of spine)	...	3
Dental caries	... ..	3
Valvular Heart Disease	... ..	3
Laryngitis, Incontinence of Urine, Threadworms, Otitis media, Cerebral Diplegia, Injury to Arm, Burn Septic Finger, Marasmus (no apparent actual disease)	... ..	one case each.

Health Visitor.—The Health Visitor attended each clinic, and generally supervised the mothers and children, and, as last year, regularly followed up and visited each case at home. I feel certain that her regular home visiting greatly assists the work and keeps up the attendance at the clinic.

District Nurses.—The Nursing Association has kindly allowed one of their nurses to attend each week and assist at the Centre. This help is greatly appreciated.

Voluntary Workers.—Several members of the Ladies' Committee continue to attend each week, preparing and serving the tea, and in general greatly assisting the mothers and children. Their attendance is voluntary and very regular; and I express here my sincere gratitude to them for their valuable help.

Propaganda Work.—This consisted of :—

(1) Entering for the "Daily Sketch" Baby Competition, with all the interest, excitement and rivalry which that caused amongst the mothers. Five babies gained certificates of merit, two won silver prizes in the semi-final heat, and one won a £10 prize in the final heat. The Centre received a prize of £5 which has very wisely been spent in providing a substantial and useful draughtscreen for the Centre.

(2) The giving of two or three Lectures and Demonstrations on subjects of interest to mothers and prospective mothers. These were not attended as well as they ought to have been, and this part of the work wants a lot of working up. Mrs. Vaughan Stubbs kindly gave one demonstration, and Nurse Percival another.

(3) The provision of a Christmas Tree and tea for the children and mothers who regularly attended the Centre during the year.

Library.—This remains as last year and several of the mothers have made good use of the various books.

The thanks of the Council are due to the following generous donors of gifts to the Centre :—

(1) To Mr. and Mrs. Barton for supplying tea, milk, bread

and butter each day, and for a children's playground and various children's toys.

(2) To Miss Dempster for giving the Christmas Tree and Tea to 87 mothers and their children.

(3) To the Garments Committee (Hon. Sec., Mrs. Newall), for various children's garments to be given to the children of soldiers attending the Centre.

(4) To Mrs. James Fowles for the loan of a very useful "form," which provides sitting accommodation for all on the very busy days.

II.—MATERNITY SECTION.

During the whole year only three prospective mothers were seen by me, and these were really only "casuals" who did not come up for systematic examination and advice, but who merely happened to mention the matter to the Health Visitor when up with older children.

This is extremely disappointing and unsatisfactory, inasmuch as the care of the unborn child is quite as important as, nay sometimes more important than, the care of the child after birth.

Our difficulty in this respect was mentioned to the Inspector from the Health Ministry ; but she could offer no advice.

So far as I can see, the reasons for the failure in this respect are chiefly two, viz. :—

(1) The natural reticence of a prospective mother in a small town like Winsford to advertise her condition by coming to the Centre, and her ignorance of the importance of the prenatal period to herself and her child.

(2) The indifference of the local midwives to the importance of this prenatal period.

If the second reason can be overcome, I think the first will largely cease to exist. We must therefore enlist the sympathy and co-operation of every local midwife. The midwife's sphere of work lies chiefly amongst the class we wish to get at, and it is the midwife who is usually the first to become the confidante of

the prospective mother. She is, therefore, the person, par excellence, whom we ought to interest in antenatal work, and we should impress on her that the Centre is not out to rob her (as I am sure she thinks it is) but to help her.

In addition we might enlist the more active co-operation and sympathy of any other local body of workers on similar lines, e.g., the Mothers' Union.

I would therefore suggest for improving this part of our work:—

(1) That the local midwives be approached by the M.O.H. or other responsible individual, e.g., the County M.O.H., and urged to send, or at least strongly persuade, all their cases to come to the Centre for examination, or, better still, bring up their cases personally. I further suggest that a report be sent to each midwife, of all her cases who come up, somewhat similar to that which we now send to each medical man respecting the children.

(2) That other local bodies of workers on similar lines be approached, and asked to impress upon their members the importance of the prenatal period, and the benefit of coming to the Centre. Also we might provide such bodies with literature advertising the Centre, e.g., leaflets published by the National League for Health, Maternity and Child Welfare, and ask them to distribute such literature amongst their members and friends.

(3) That the Child Welfare Committee should be made more "alive" than it is at present, and meet as a committee of the Council at stated periods as other Council Committees do.

(4) That a separate day and hour be set aside for Maternity cases at the Centre if thought advisable.

In conclusion I thank the chairman and members of the Council for their unstinting support of the Centre, and all the officials concerned, who have worked very smoothly together

I am, Sir,

Yours faithfully,

R. H. DEANS, M.B., Ch.B., D.P.H.

Medical Officer to the Centre.

(3) *Puerperal Fever*. No cases.

Ophthalmia neonatorum. Notified in May. Condition of eyes.

Case notified in November. The baby was born on November 5rd, the mother being attended by a midwife. The Health Visitor called on November 17th, and finding a discharge from the right eye advised that a doctor should be summoned.

Measles	see pages 29—31
Whooping Cough	„ „ 32
Epidemic Diarrhœa	„ „ 32
Poliomyelitis	„ „ 32

VI. SANITARY ADMINISTRATION.

(1.) Staff.

The Medical Officer of the Child Welfare Centre is responsible for the internal working of his department. The Surveyor bears the responsibility for the water supply, sewers, sewage disposal, scavenging [except that of cesspool-privies and peat pails] and the erection of new buildings. He is not an official of the Health Department. All other matters relating to public health are in the hands of Mr. Hickson, the Sanitary Inspector. In addition, he supervises the scavenging of peat pails and cesspool-privies. This work, done now by contract, might well be done by the Council's employes, under a scavenging foreman, controlled by the Surveyor. That arrangement would be more economical, and would release the Inspector for his proper duties. The investigation of outbreaks of infectious disease, the superintendence of the arrangements for removing patients to hospital, the provision of antitoxin and bacteriological outfits, the arrangements for disinfection of premises and infected bedding, the supervision of bakehouses and slaughter houses, the inspection of cowsheds, the negotiation of improvements, and the remedying of innumerable nuisances great and small constitute a labour which, in a town housing over 12,000 people, means a full day's work for a man of active intelligence, together with not a little overtime.

The Health Visitor, Mrs. Joynson, was appointed in February, 1916, to work under the Notification of Births Act, and

also from time to time under the Measles Order. At first she was employed part time, but later become a whole-time official.

(2.) Hospital accommodation of infectious diseases :—

Davenham Isolation Hospital and Marbury for Small-pox. The administration is by the joint committee of the districts maintaining these hospitals.

(3.) Local Acts, Special Local Orders, or General Adoptive Acts in force in the District.

Local Acts.—None.

Adopted Acts.—Infectious Disease (Prevention) Act, 1890.

Public Health Amendment Act, 1890.

Public Health Amendment Act, 1907, parts ii., iii. and iv.

(4.) Arrangements for chemical and bacteriological work during 1919.

The Lister Institute has examined numerous throat swabs, &c. and the Laboratory of Public Health, York Place, Manchester also undertakes investigations for the Council. Examinations for tubercle Bacilli in sputum are generally made by the County Tuberculosis Department.

(vii.) OTHER SERVICES, viz :—

Points in which the work of the Council is in co-operation with the National Health Insurance or Voluntary Hospitals, &c.

The Albert Infirmary would be available if cases should occur in which Hospital accommodation were required in connection with the Maternity and Child Welfare Scheme; but as the ordinary routine of the Hospital deals with all applicants the need does not arise.

(viii.) HOUSING :—

(As instructed by Memo 9/Med., I am submitting this portion of the Report in a separate fasciculus).

I am, Sirs,

Your obedient servant,

LIONEL JAS. PICTON.

TABULAR SUMMARY OF SANITARY WORK DURING 1919 for information of Cheshire County Council.

Water Supply.

- (1) Have any extensions been carried out during 1919? If so please append brief note.—Nil.
- (2) Number of samples analysed during 1919: Chemically, nil; bacteriologically, nil.
- (3) Are any, and if so what, parts of your district still without a proper supply of water?—Nil.

Sewerage and Sewage Disposal.

- (1) Specify any new works of sewerage carried out during 1919.—Nil.
- (2) Are any, and if so what, parts of your district still without a proper system of sewers as in 1912? “The District is well served as regards the town itself.” Further improvements were made in 1914. “Some of the sewers are very old and not such as would be laid to-day.” “Outlying houses in rural conditions are beyond reach, but are not numerous.”
- (3) Have there been any complaints to your knowledge during 1919 as to the disposal works?—Nil.
- (4) Have any alterations or extensions taken place to your knowledge in the disposal works during 1919?—Nil.

Housing.

- (1) Number of new houses built during 1919.—Nil.
- (2) Number of dwelling-houses inspected under s. 17 Act of 1909.—Five.
- (3) Number of such houses considered unfit for habitation.—Nil.
- (4) Number of representations made to Local Authority.—Five.
- (5) Number of closing orders made by Local Authority.—Nil.
- (6) Number of houses where defects remedied without closing orders being made.—Five.

- (7) Number of houses where defects remedied after closing orders made.—Nil.
- (8) Estimated or ascertained number of houses within limits of rent in s. 14 of Act of 1909.—2,200.
- (9) Number of such houses in respect of which notice was served during 1919.—Nil.
- (10) Number of such houses closed after notice.—Nil.
- (11) Number of such houses where Local Authority has executed necessary repairs, &c.—Nil.
- (12) Approximate number of back-to-back-houses in district.—16.
- (13) Approximate number of cellar dwellings in district.—Nil.
- (14) What number of dwelling-houses for the working classes has your Council decided are required under the recent Housing Act ?—40.

Town Planning.

Has any scheme of Town Planning been put forward during 1919 for your District or any part thereof ?—Nil.

Maternity and Child Welfare.

- (1) Has a Health Visitor been appointed, whole time ?—Yes.
- (2) Are all new births which need visitation seen by Health Visitor ?—Yes. If so how often ?—After the Doctor or Midwife leaves, each week for three months.
- (3) Have you any Maternity Centre—Yes ; Babies' Welcome—Yes ; Day Nursery—No ; Infant Consultation—Yes ; School for Mothers, &c.—No.
- (4) If the Health Visitor does other work please give brief particulars.—During an epidemic she visits measles.

(Signed)

LIONEL JAS. PICTON.

April, 1920

1919.

Report on Housing

In the Urban District of
WINSFORD.

PREPARED BY

LIONEL JAS. PICTON, O.B.E.,

M.A. Oxon., M.B., B.Ch., L.R.C.P., M.R.C.S.,

Medical Officer of Health for the District.

In accordance with the instructions
of the Memo. 9/Med. from the Ministry of Health.

Winsford Medical Officer of Health's Report on Housing in WINSFORD.

The Ministry of Health's Memo. 9/Med. gives instructions that the portion of the Report of a Medical Officer of Health that deals with *Housing* should on this occasion be comprised in a separate volume from the rest of the subjects, in order to facilitate its perusal both locally and in the Housing Department of the Ministry of Health.

The paragraphs are numbered as in the questionnaire from the Ministry.

(I.) General Housing conditions in the district:—

(1) Number of houses : total number ...	...	2428
Inhabited houses at 1911 Census	...	2372
Houses demolished since 1911 ...	...	4
New houses since 1911 :—		
Built in 1912	...	2
1913	...	12
1914	...	5
1915	...	2
1916	...	Nil.
1917	..	Nil.
1918	...	Nil.
1919	...	Nil.
Houses empty at 1911 Census ...	...	65
In 1919 there were practically no empty houses.		
Number for working classes :—		
Rental up to £12	...	1941
Exceeding £12 but not over £20	...	431
New houses for working classes erected in the course of 1919 or in course of erection		
erection	...	Nil.
(2) Population	...	12145

Important changes in population during 1919 :—

In 1918 the estimate of population for the purpose of death-rate, *i.e.*, of the residual population when the sailors and soldiers were withdrawn, was 10,052.

The return of the service men is chiefly responsible for the increase.

Important changes anticipated—nil. The circumstances of the staple industry are these. Originally the whole of the salt was made in open pans, requiring much manual labour. The Salt Union abolished dozens of these pans, and substituted the Vacuum plant, greatly reducing the need for labour. If the Vacuum principle be extended there is a prospect of less, rather than more labour being required, even though the tonnage of output be maintained. The population is not a migratory one, and even if work were slack in this neighbourhood the experience of the past is that many of the inhabitants will prefer to cycle to work in the neighbouring chemical industries and to reside in Winsford, rather than to leave the district. Dr. Garstang's remarks, in the following paragraph, however, shew that some fluctuation has occurred according to the state of trade.

(3) (a) Extent of shortage :—

My predecessor, Dr. Garstang, reported at the beginning of February, 1912, that there was not a vacant house in Wharton, and only eleven in Over, (mostly large houses). For 18 months prior to February, 1912, not a single set of plans for a dwelling house had been submitted to the Council. "There is," he said, "a definite shortage of houses for the working classes. But the problem," he continued, "is more complicated. The shortage exists to-day, because of an improvement in trade. Eighteen months ago there were numerous houses empty; and it will probably be the same in the future." In 1913 he wrote, "Speculative building has ceased Rents and rates are extremely low; and persons who really ought to be in the neighbouring towns, such as Northwich and Middlewich, find it worth their while to reside in Winsford. Thus an artificial shortage of houses is added to the natural shortage for the true residents The result is overcrowding of existing available cottages, with all the well-known attendant insanitary and immoral conditions; and with no possibility of amendment. To serve a nuisance notice to abate overcrowding is only to move the nuisance from one house to another." Even at the end of 1916, when the population was depleted by the war, the Inspector wrote :—"A number of cases of overcrowding has come under observation during the year; in some instances the evil has been remedied; but in a few cases the nuisance continues, chiefly owing to a shortage of house accommodation suitable to the needs of the particular class of people affected."

The return of the troops has greatly emphasised the need for new houses. Overcrowding, in the sense of more than two persons per occupied and living room, occurred in October, 1919, in 93 houses, 22 of which had more than one family in occupation. Of other houses, not technically "overcrowded," 175 were occupied by more than one family (as set out in detail below, pp. 6—9), so that 413 families were found to be crowded into 197 houses.

In estimating the number of houses with more than one family, cases where a married son or daughter was living with a father or

mother were not reckoned as two families ; nor were lodgers taken into consideration, except married couples.

There are 233 persons residing in Winsford who work at neighbouring towns, viz. :—155 at Winnington, 34 at Lostock, 24 at Cledford, and 20 at Middlewich. If these places were to build houses in numbers adequate to accommodate the population engaged in their local industries, no doubt Winsford would be relieved of some of these persons, together with their families.

(b) Measures taken or contemplated to meet the shortage of houses :—

The Council has prepared a housing scheme for the erection of 40 new houses.

The figure, 40, is arrived at by three separate lines of consideration :—

1. Mr. Hickson's estimate of the number of overcrowded houses between 1911 and 1914 (see II. (1) below) is	33
The number of houses required to replace houses unfit for habitation is	3
And to replace obstructive houses which should be demolished is	4
Total	40 houses
2. The average annual increase of population for the five years before the war was	38·8 people
The average "Number of Persons per house" at the 1911 census was	4·54 people
Thus the number of houses required in an average year to meet the increase of population is not less than	8 houses
In the six years 1914 to 1919, the houses required on this basis would be	48 houses
As a matter of fact the number built was	7 houses
Balance of houses now required	41

On this method of calculation however nothing is allowed for replacements of demolished houses.

3. The actual total increase of population in the six years ending December, 1919, has not been the pre-war annual rate of increase multiplied by 6, but a much higher figure :

Anticipated increase of population at pre-war rate—
 $6 \times 38\cdot8 = \text{about } 233 \text{ people.}$

Actual increase by the Registrar General's figures :—
 Difference between 1913 estimate (which was the
 same as 1914 estimate) 10,850
 and 1919 estimate ... 11,935—1,085 people.

On the estimate of population for 1919 made in this office,
 viz. :—12,145, the increase would be 210 higher, viz :—
 1,295 people.

On the basis of 4·5 persons per house, these 1,295 people
 would require 238 new houses.

But as the bread-winners of 200 families work in other
 towns which should become their permanent domicile,
 the new houses required for Winsford would, in that
 respect, be nearly 200 less, leaving a balance of about
 40 new houses required.

I am doubtful, however, about the claim that the housing needs
 of the town are reduced by the numbers living in it but working
 elsewhere, for there are not a few saltworkers who live elsewhere and
 cycle into Winsford to work.

It will, therefore, be seen that the number of new houses to be
 built, 40, though it will considerably ease the pressure, is by no
 means a final one, even for present numbers of population ; and the
 Council recognized this fact, as will be seen by a perusal of Section II
 in the Survey of Housing needs (page 13 below).

For an account of the Council's housing proposals see Section
 (VI.) below (pp. 16—28).

(II.) Overcrowding :—

(1.) Extent.

In July, 1919, I reported to the Council :—"In all there are 93
 overcrowded houses. Population of these houses :—

480 persons over 10 years old

290 „ under „

being 164 persons in excess of the 2 persons per room
 standard.

[For the purpose of the standard, bedrooms, kitchen, and, if con-
 taining a cooking range, scullery, are all included.]

In 22 of the 93 overcrowded houses there was more than one
 family.

These are not estimates, but are actual figures, the result of over
 2,000 inspections.

(2.) Causes.

The overcrowding in Winsford, as shewn by my predecessor in his reports quoted in I. (3) above (page 4), existed to some extent before the war. In a series of inspections made by Mr. Hickson between 1911 and 1914 of 329 houses of the poorest class of property in Winsford, selected as the worst in different parts of the town, 11 houses in all, or 3·3%, were found to be overcrowded.

The causes of this pre-war shortage are dealt with in I. (3) above, viz. :—

Speculative building had ceased.

People who worked elsewhere came to live in Winsford because of the low rates.

Improvement in trade aggravated the shortage.

The post-war causes are, of course, the return of the troops together with the fact that only 7 houses were built during the war.

The overcrowding occurs especially in the low-rented houses, with pre-war rents of 2/6 or 3/-, now 3/- or 3/6. The rent never was an economic one to provide adequate accommodation for an average family.

If the occupants be ejected, they seek a similarly rented house. Even if the tenants of this class of property were willing to offer a rent that should command a better cottage, house owners might be chary of accepting them as tenants.

The existence of cottages with two bedrooms is itself a cause of overcrowding—"True, there is many a family which two bedrooms will conveniently hold, and when the supply of cottages is sufficient to allow tenants to pick and choose, there may be no harm in building more with this limited accommodation"; but . . . "the landlord who builds small cottages for small families is almost sure to find some of them overfilled by large families, or by small families become large" (Goodhart Rendal 19th Century, June, 1919).

And families in Winsford are, in fact, large. The birth-rate is 3·4 higher than that of the Administrative County.

(3.) The measures taken or contemplated to deal with overcrowding are comprised in the Council's Housing Scheme:—(see VI., pp. 16—28).

(4.) Principal cases of overcrowding dealt with during the year, and action taken :

In my report to the Council for June, 1919, I mentioned that the following were some of the overcrowded houses :—

In Salter's Wall	...	2
,, Delamere Street	...	5
,, Meadow Bank	...	14
,, Mill Farm Cots	...	4
,, Swanlow Lane	...	6

Also that six of the "Back-to-Back" houses in the district were overcrowded :—

Back-to-Back houses :—

In Shaw's Lane	...	11
,, Mill Farm	..	3
,, Baker's Lane	...	4

In my report for August, I mentioned the worst half-dozen samples of overcrowded houses :—

13, Winsford Hill ...	4 small rooms ...	1 family of 9, including 4 children.
4, Littlefold ...	3 ,, ,, ...	2 families, 10 persons, including 6 children.
10, Winsford Hill ...	6 ,, ,, ...	2 families, 13 persons, including 6 children.
19, Hill Street ...	4 ,, ,, ...	2 families, 11 adults.
9, Dingle Lane ...	1 living room, 2 bedrooms ...	1 family, 13 persons, including about 7 children ; but several other adults make their home there, but are said to sleep elsewhere: 4 beds.
512 High Street ...	3 small rooms ...	1 family, 11 persons, including 3 children.

As further illustrating "the need for house room to be somehow provided," I mentioned :

35, Swanlow Lane : It was not technically "overcrowded," but its occupants were :—

An elderly couple	...	...	...	...	2
A widow and three children	...	...	...	...	4
A woman with two children	...	...	...	...	3
A man lodger	...	...	...	...	1
An ex-soldier (Winsford's V.C. by-the-way, with his wife and child)	...	...	...	...	3
Total	...	...	...	...	13

Accommodation : Three bedrooms upstairs and one downstairs, and a living room and scullery.

With the best will in the world such a household could not be kept very sanitarily. It is an unsuitable place for the nurture of children, or for the birth of children.

For some of the inhabitants of the last-named house, accommodation was shortly afterwards found elsewhere ; otherwise no administrative action could be taken pending the provision of new houses.

III. Fitness of Houses.

1. (a) General standard of housing in the district—out of the 2,428 houses all but 228 are of the working-class types, with rents, in 1919, between 3/- and 6/6 a week.

The simplest, of which there are large numbers amongst the older property, consist of two ground-floor rooms, either living room and small scullery, or parlour and kitchen. The washhouse is usually across an open yard, and the cesspool-privy at the bottom of a strip of garden. There are two or sometimes three bedrooms. The yards are paved with flags or cobblestones on to which the wash-tubs are emptied.

Between the years 1911 and 1914, some 671 of these houses were “inspected.” Of this inspection, Dr. Garstang wrote : “Every house registered as *inspected* is *also* thoroughly dealt with, and put into a satisfactory state of repair.” . . . The cesspool-privy was the primary objective ; and strategy was used in approaching the house owner. “A bare order to convert would probably have resulted in the erection of an inferior type of water-closet on the same site, and nothing more. What has actually been obtained, by negotiation and persuasion, is the abolition of the privy building, the site being added to the yard ; the erection of a first-class closet and wash-house, contiguous to the scullery ; and general improvements including paving and draining yard and provision of trapped gully, provision of slopstone and waste-pipe, and general repairs to house.

The lower rented houses in Winsford have since 1911 been thus inspected and improved to the number of 671, and there remain not yet dealt with 1,046. [They would have been dealt with but for the war.]

Houses built in recent years are regarded as of exceptionally good class. Gladstone Street and Crook Lane contain many examples. They all, of course, ignore the points of the compass in their plan. The back projections block the light and outlook from the kitchen window as effectually as in the older cottages, but their arrangements are undoubtedly more convenient and adequate ; at least three bedrooms is the rule amongst them ; and often there is a bathroom and upstairs’ water-closet, and always a parlour.

Winsford is deceptive in the impression given by its long main street, of being a dense urban district; for immediately behind the long rows of houses are open fields. This is true of practically all its streets except four, Dean Street, John Street, Well Street, and one side of Princess Street. It is a characteristic, which it would be wise to preserve; and it certainly raises the general standard of housing in the district, for "housing" includes the disposition of houses on the land.

About 60 houses in the hamlet of Meadow Bank are built of clinkers with brick corners, copings, and finish. They are mostly ground-floor dwellings, though a few have upstairs rooms. They are neither badly conceived, nor badly built; but the materials are porous, and the houses suffer from being damp. Some of the rooms, which appear very small from the outside, are quite commodious and airy as they enjoy the benefit of the full pitch of the roof.—No doubt if cavity walls were used, and modern methods of rendering the surface with cement and sand, the clinkers could be employed with more permanent success.

These houses stand on an airy site on the left bank of the Weaver and near the Salt-works.

(b) General character of the defects found to exist in unfit houses :—

“Cesspool-privies” with untrapped overflow pipes to sewers.
 Want of light } sometimes caused by obstructive out-build-
 Want of air } ings which, in some cases, are unauthorised.
 Defective floors, ill-paved, pervious and undrained yards.
 Want of slop-stones, and slop-stones without waste pipes.
 Damp walls.
 Insanitary disposal of refuse, making waste land of what
 should be garden.
 Uncleanly conditions (in 4 houses especially).
 Defective drainage.

(2.) Action taken as regards unfit houses (a) under the Public Health Acts :—

5 cesspool-privies were converted to water-closets.

This was arranged by negotiation, and not as the result of serving a notice.

(b) Under the Housing Acts :—Nil.

(3.) Difficulties in remedying unfitness of houses :—

The high cost of building operations, both of materials and labour, the great difficulty in getting work carried out, through labour shortage, and the uncertainty as to whether an increased rent was permissible to cover the interest on capital laid out on improvements constituted the difficulties encountered. I addressed an enquiry as

to the right of a landlord in the last-mentioned matter to the Ministry of Health, and received a reply, dated 10th October, 1919, "that the Ministry have no administrative powers under the Increase of Rent and Mortgage Interest (War Restrictions) Acts," and expressing no opinion.

Illustrating the prohibitive expense of labour, the cost of such a re-modelling of the rear premises of a cottage, as was being systematically carried out for the years previous to the war, may be mentioned. The present cost would be from £70 to £100 per cottage, equal to 9 years' rent.

Suggestions for dealing with the situation are made in the next paragraph.

- (4.) Conditions as regards water supply, closet accommodation, and refuse disposal, so far as housing is affected :—

The water supply [see II. (1), pages 11 & 12 of General Report] is inadequate for the general adoption of the water carriage system in place of the cesspool-privies. I suggest that in the few cases when all that is required to convert a cesspool-privy into a w.c. is to instal the pedestal and connect with sewer without other reconstruction, that might well be done, and at no great cost ; but that in all other cases pail closets, either peat-pails or e.c.s [earth closets] should be installed. The cost would be from £3 to £5 per closet.

Many of the cesspool privies are leaky, and to spend money on them is unsatisfactory, as, at the best, they constitute a nuisance. On the other hand it is within a householder's power to keep an earth-closet perfectly sanitary. This policy would satisfactorily tide the district over a number of years, whilst the question of water supply is being settled.

(IV). Unhealthy Areas :—

(1.) Action taken as regards areas represented before the beginning of the year under Part I. or Part II. of the Housing Act of 1890 :—Nil.

(2.) Particulars of, and action taken as regards areas represented during the year :—Nil.

(3.) Information as to complaints made during the year that areas were unhealthy and action taken :—Nil.

V. Bye-Laws relating to houses, to houses let in lodgings, and to tents, vans, sheds, etc. :—

- (1.) As to working of existing bye-laws :—The Bye-laws as to New Streets and Buildings, date from 1879, those for Common Lodging Houses from 1877, those for Tents, Vans, Sheds, etc. from 1907. No special matter under any of the Bye-laws has arisen.
- (2.) As to need for new bye-laws or revision of existing bye-laws :—The revision of the old Bye-laws is engaging the attention of the Council.

As summing up much of the information in the above paragraphs I here print the Form of Survey of Housing Needs of Winsford Urban District under the Housing, Town Planning, &c. Act, 1919 forwarded to the Housing Commissioner, October, 1919.

Section I.—Prevailing Conditions Affecting Shortage of Houses.

Industries.

1. Particulars as to the staple industries of the district (or any parish or part of the district).—Salt industry.
2. Particulars of any anticipated industrial development.—Nil.
3. Particulars of any considerable reduction which may be anticipated in the number of persons employed in any industry in the district.—Nil.

Population.

4. Pre-war population (1914).—10850.
5. Average annual increase of population for the five years before the war.—38·8.
6. Estimated present population.—11263.
7. Anticipated increase or decrease of working-class population due to industrial changes.—Nil.

Existing Housing Accommodation.

8. Number of dwelling-houses in the district.—2428
9. Number of working-class houses of the types given in the reply to question 15.—2200.
10. Average number of working-class houses built annually during the five years before the war.—5·8.

11. Number of working-class houses built between January 1st, 1915, and December 31st, 1918.—2.

12. Number of empty buildings which might be (a) made suitable by repairs or alterations, for housing the working-classes; or (b) converted into flats for the working-classes.—(a) Nil.—(b). Nil.

Overcrowding.

13. Tenements with more than two occupants per room :—

Number of Tenements.—93.

Total number of Occupiers.—780.

14. Number of houses intended for one family only which are now occupied (without having been specially adapted) by two or more families.—[22 “overcrowded” houses (more than two occupants per room) are occupied by more than one family.]

Rents.

(15.) Particulars of prevailing rents of the various types of working-class houses in the district :—

Type of House.	Weekly Rent.
(a) Houses with living room, scullery and two bedrooms	3/-
(b) Living room, scullery and three bedrooms ...	3/6
(c) Parlour, living room, scullery and two bedrooms ...	3/6
(d) Parlour, living room, scullery and three bedrooms	4/9
(e) Parlour, living room, scullery and four bedrooms	6/6
(very few)	
(f) Tenements in block buildings ...	—
(g) Other working-class dwellings (specifying) ...	—

Section II.—Estimate of Housing Needs.

(1.) Working-class houses required during the next three years to :—

	No. of houses.
(a) Meet the unsatisfied demand for houses (taking account of growth of population, overcrowding, etc.)	33
(b) Re-house persons to be displaced by the clearance of unhealthy areas	Nil.
(c) Replace other dwellings which are unfit for human habitation and cannot be made fit	3
(d) Replace obstructive or other buildings (now inhabited and not included under heading (c) which should be demolished)	4

(e) Replace other houses which, although they cannot at present be regarded as unfit for human habitation, fall definitely below a reasonable standard	53
(f) Meet anticipated deficiencies, <i>e.g.</i> , arising from new industrial development	Nil.
Total	—

(2.) Deduct—

(a) Working-class houses which it is anticipated will be set free during the next three years as the result of any probable decrease in the population	Nil.
(b) Working-class houses likely to be built during the next three years by persons other than the Local Authority	uncertain at present.
Total	—

Net estimate of Number of houses required 40 at once

Details of figures given in reply to question 2 (b):—

Public Utility Societies—Nil.

Housing Trusts—Nil.

Industrial Undertakings or Business Firms—Nil.

Private persons—Uncertain at present.

Total (which should agree with the reply to question 2 (b))—Uncertain at present.

Section III.—Areas which are being, or may have to be, dealt with as unhealthy under Part I. or Part II. of the Act of 1890.—Nil.

Section IV.—Insanitary Houses (other than houses in unhealthy areas of which particulars are given in Section III.)

PREVAILING CONDITIONS.

- (1) How many inhabited houses are there in the district which are not and cannot be made fit for human habitation?—3.
- (2) Number of persons inhabiting these houses—
- (3) How many houses are already subject to
 - (a) Closing Orders?—2
 - (b) Demolition Orders?—Nil.

- (4) How many houses are seriously defective but can be made habitable?—1046.

They are seriously defective in view of the privy midden system, etc.

600 similar houses were satisfactorily dealt with prior to the war.

PROPOSED ACTION.

- (5) What immediate action is contemplated by the local authority with regard to

- (a) houses which are not and cannot be made fit for human habitation?

Of the 3 one is disused and will not be used.

No immediate action is contemplated till new houses are available.

- (b) houses which are seriously defective but can be made habitable?

The question is contingent on the conversion of cesspool privies [1044] to W.Cs., a matter which is before the Council.

- (6) Within what time is it contemplated that conditions will be such as to warrant the demolition of the houses which are not and cannot be made fit for human habitation?

When the new houses are built. [Please refer to answer 5 (a)].

Section VI.—Scheme of the Winsford Urban District Council for the provision of New Houses under Section 1. of the Housing, Town Planning, &c. Act, 1919.

1. Approximate number of new houses to be provided :—

- (a) Houses with Living Room, Scullery and two bedrooms
- (b) Living Room, Scullery and three bedrooms
- (c) Parlour, Living Room, Scullery and two bedrooms
- (d) Parlour, Living Room, Scullery and three bedrooms—40
- (e) Parlour, Living Room, Scullery and four bedrooms
- (f) Block dwellings. (Number :—)
- Number of separate tenements
- (g) Other dwellings (specifying type)
- Total number of houses and separate tenements—40

2. Approximate number of existing empty houses to be acquired and :—

- (i) made suitable for housing the working classes
- (ii) converted into flats for the working classes—1
- Approximate number of families to be housed under (i) and (ii)—4

3. Approximate acreage of land to be acquired—5 acres

4. Average number of houses per acre—8
5. Approximate localities in which land is to be acquired—
Wharton—Crook Lane : Over—High Street.*
6. Time within which it is proposed that the scheme (each part of the scheme) is to be carried into effect :—Approximate date for completion—Unknown.
7. Particulars of any measure necessary, as part of the scheme, for the preservation of existing erections of architectural, historic or artistic interest, or for the preservation of the natural amenities of the locality.—Nil.
8. Any other provisions (including provisions for joint action with any other Local Authority).—Unknown.
9. Is it anticipated that the scheme may subsequently require to be amended? If so, any relevant considerations should be stated.—

The above scheme was adopted by the Winsford Urban District Council at a Meeting of the Council held on the 8th October, 1919.

JNO. H. COOKE, *Clerk.*

VI. General and Miscellaneous.

Generally, an account of any action bearing on public health, not covered by the above particulars, which has been taken during the year by the local authority in connection with overcrowding, insanitary property, and housing, whether under the Housing Acts or the Public Health Acts.

On the instruction of the Council the following report was drawn up and submitted in June, 1919 :—

WINSFORD URBAN DISTRICT COUNCIL. SCHEME TO PROVIDE HOUSES, MAY, 1919.

Mr. Chairman and Gentlemen,

On May 10th, the Council passed the following Minute : “That the Medical Officer of Health, together with all necessary officials, prepare a scheme under the housing of the Working Classes Act to provide 40 additional houses within the district.” In accordance with that resolution I beg to submit the following scheme and memoranda :—

1. GENERAL CONSIDERATIONS.—The population has tended to remain at about the same figure (The post-war increase of population

* The question of the Over Site has, since, been re-opened.

was not ascertained in May, 1919). If, therefore, the 40 new houses were merely required to replace others considered no longer fit for habitation, it might be sufficient to erect them on any available vacant land facing existing thoroughfares in the central parts of the town.

Several considerations point to the desirability of taking a wider view of the requirements than this. Mr. Hickson's investigations tend to show that the number of overcrowded houses, that is with more than two persons per room, is greater than it was at the time of his inspections several years ago. It is common knowledge that young people on their marriage are often compelled, through the present dearth of houses, to live with their parents. Mr. Hickson finds it is far from uncommon for several families to share one house. Not a few houses are of an undesirable type, and should be replaced at an early date. There is no surplus of unoccupied houses, so that to condemn any would mean to still further overcrowd the rest. There has been little, and, latterly, no building during the last $4\frac{3}{4}$ years, so that the normal replacement rate, without allowing for any growth at all of population, has not been maintained. The houses of Winsford extend for the most part along the sides of a few main streets. Almost invariably there is grazing land right up to the back premises. As a very large percentage of the dwellings consists of low rented cottages with very restricted cubic space, it is particularly desirable to maintain unspoiled this characteristic blending of the green fields with the built-up streets. It is impossible to foretell whether any development of industry will affect the population of Winsford; but the site of the new houses should be chosen on the basis of a definite town-plan permitting of any extension that may become necessary. On no account should the more central parts of the town be choked.

In addition to these several considerations, the proved value of the open type of town development, adopted in such industrial districts as Bourneville and Port Sunlight, in respect of the health, vitality, and contentment of the inhabitants, should not be disregarded.

It will be well, therefore, to form a fairly large and general scheme of how the town might, if necessary in the future, be developed on open lines which preserved the rural features of the outskirts; and to regard the 40 houses now to be built as the instalment of this scheme which is immediately required.

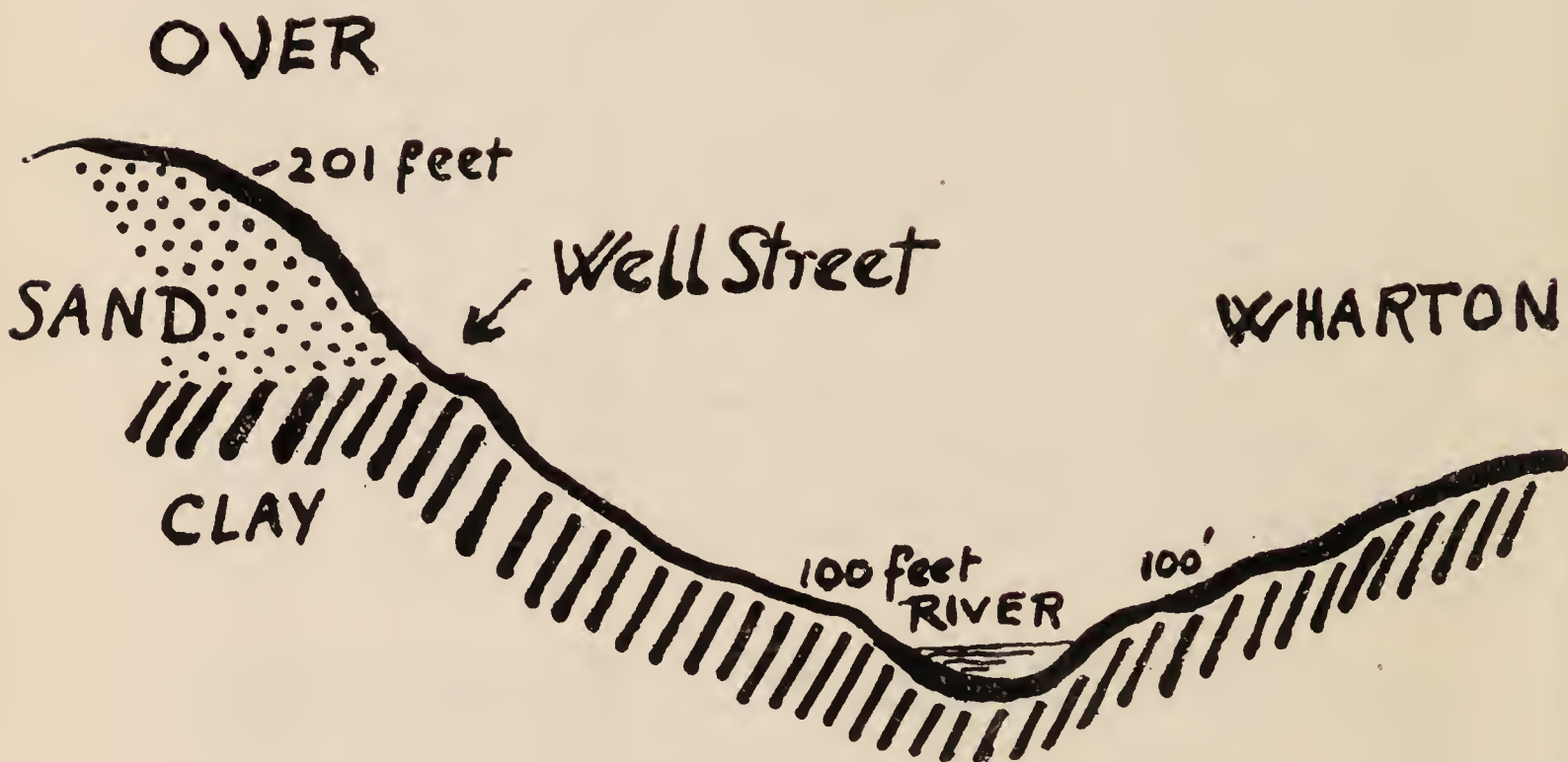
2. Sites recommended.—In Over:—the field of about 10 acres at junction of Swanlow Lane and Gladstone Street, bounded on the East by the footpath to St. Chad's Church.

[N.B.—The Over site is still under discussion by the Council, Summer, 1920].

In Wharton:—In the fields the blind or South end of Dierden Street, a strip of land running South of the Fustian Factory to the pond South of Winsford Lodge.

[The field to the West of Crook Lane was also mentioned and was the site in Wharton preferred by the Council].

3. Reasons for selecting these sites: There is plenty of land available. The factors determining choice fall under several heads:—
i. Soil: Over is partly on clay, and partly on sand. Wharton is on clay. In Wharton therefore there is no choice in respect of soil. The old wells in Over ran in a line along Well Street. Above, that is to the West of this line, the soil is sandy. Below this line the soil is marl or heavy clay. The wells marked the junction of the sand and clay.



On the score of soil, therefore, the dry sandy soil of the higher parts of Over are preferable to the lower lying portions of that parish. In the case of Wharton other considerations may nevertheless render the erection of some houses there desirable.

ii. Prevailing winds—The prevailing winds are from the West. They are smoke laden as they come from West-North-West across Crook Lane and the Nun House Farm. The higher parts of Over are very free from this objection. The selected site on Church Hill, at the junction of Gladstone Street, and Swanlow Lane, is also protected from the North by the higher parts of Over.

iii. Aspect—The Church Hill Site faces South and East. The site in Wharton behind, that is to the South of, the Dierden Street Fustian

Factory is open Southwards to the open country and to the South Westwards looks towards the Flashes, though from the ground level the bottom of the Weaver valley is hidden.

iv. Water Mains. v. Sewerage. vi. Gas Mains:—

The two chief sites selected, the Church Hill Site in Over, and the site in Wharton, are within easy access to these. The present 6 inch sewer in the uppermost length of Gladstone Street would have to be replaced by a 9 inch sewer.

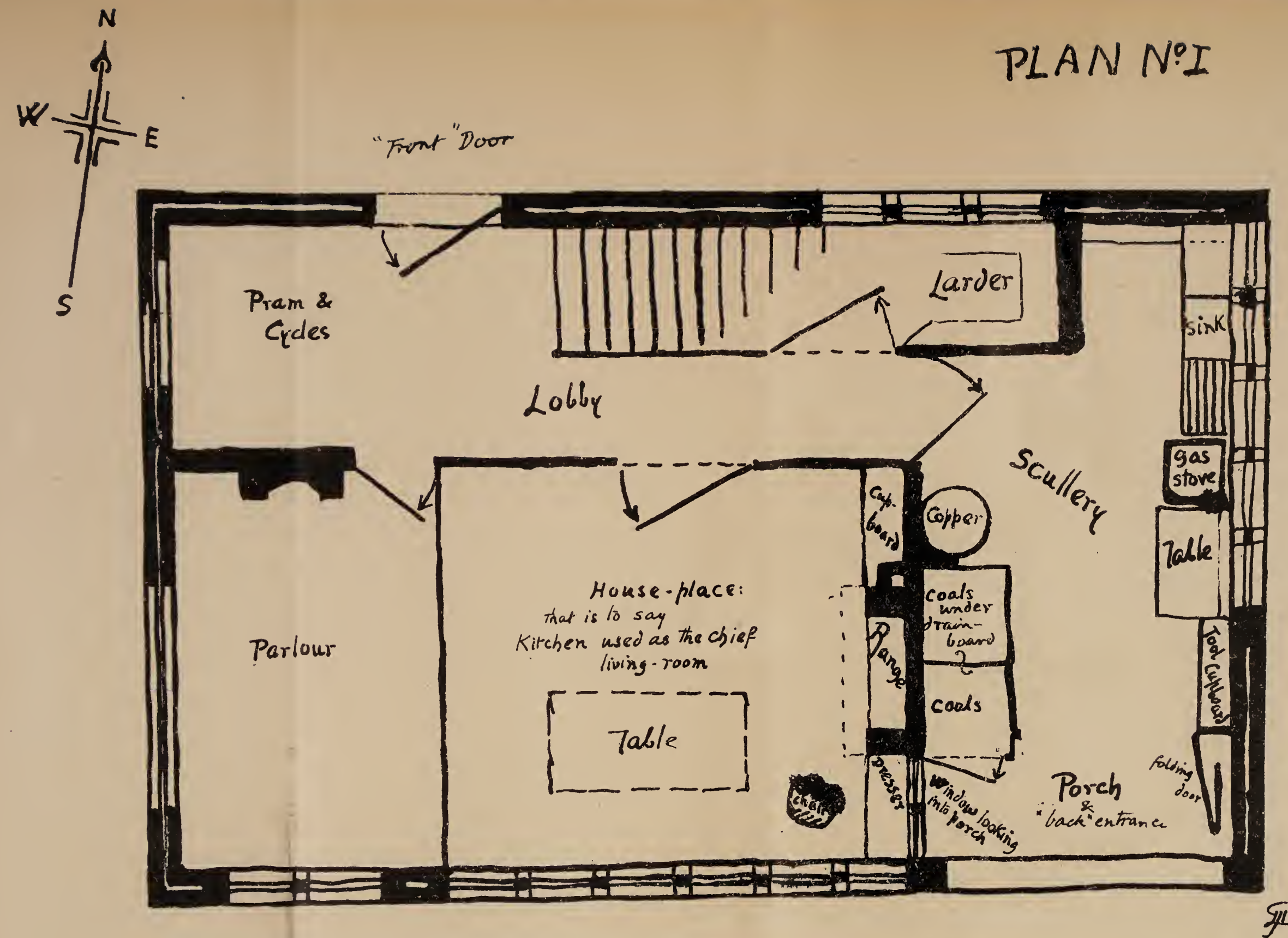
vii. Subsidence—The selected sites are outside the subsiding area. For any considerable building it would seem essential to avoid all that region.

viii. Accessibility: the Church Hill site is a little less than a mile 5090 feet, from the Weaver Bridge, calculating the distance by road along Gladstone Street, Ways Green and Weaver Street. As at present a number of residents in Gladstone Street and Townfields go to work in Meadow Bank, the distance of the site from the main industrial area does not appear to detract much from its value. On the other hand men whose duties render it desirable that they should be closer to their work could be conveniently housed in Grange Lane near the junction with Roehurst Lane. There will be a demand that some of the houses to be erected shall be situated in Wharton. The many nearer sites are much less suitable for the erection of pleasant and healthy dwellings. Donefields are too near the Salt Works to be an attractive site. For agricultural labourers at least a couple of cottages should be built at Salterswall, where two old cottages were condemned just before the war; and another couple might well be built, also for farm labourers, in Swanlow Lane at the Southern extremity of the district. With regard to the Meadow Bank District the existing unsatisfactory cottages should no doubt be replaced by a special housing scheme, preferably on a site a little more to the Westward and further away from the Works. It would seem more suitable however that the chief employers of labour in that region should undertake that work, rather than the Council. So much for the reasons for the choice of sites.

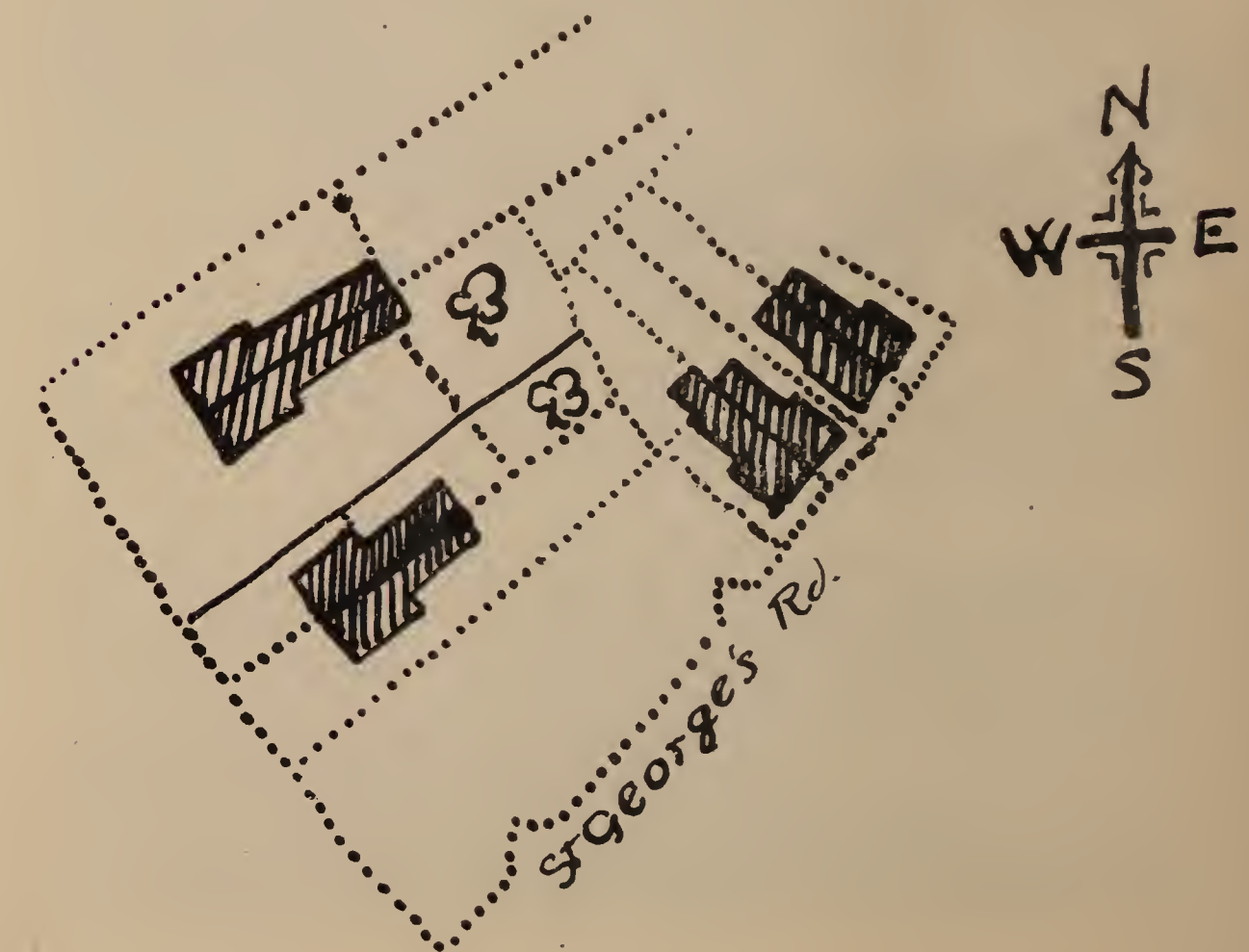
4. Type of House to be built.—The plans that accompany this Memorandum are intended to illustrate the features which are desirable in the interests of health. They are not an architect's plans for the instruction of the builder. The Council, as a Health Committee should form a clear and comprehensive conception of the type of dwelling to be built. The plan is meant to be some help in forming that conception. Whilst recognising that the duty of providing for economy in arrangement and construction will fall on the architect who prepares the building plans, that matter has not been lost sight of in the preparation of these preliminary sketches. As the sun and the soil

PLAN N°I

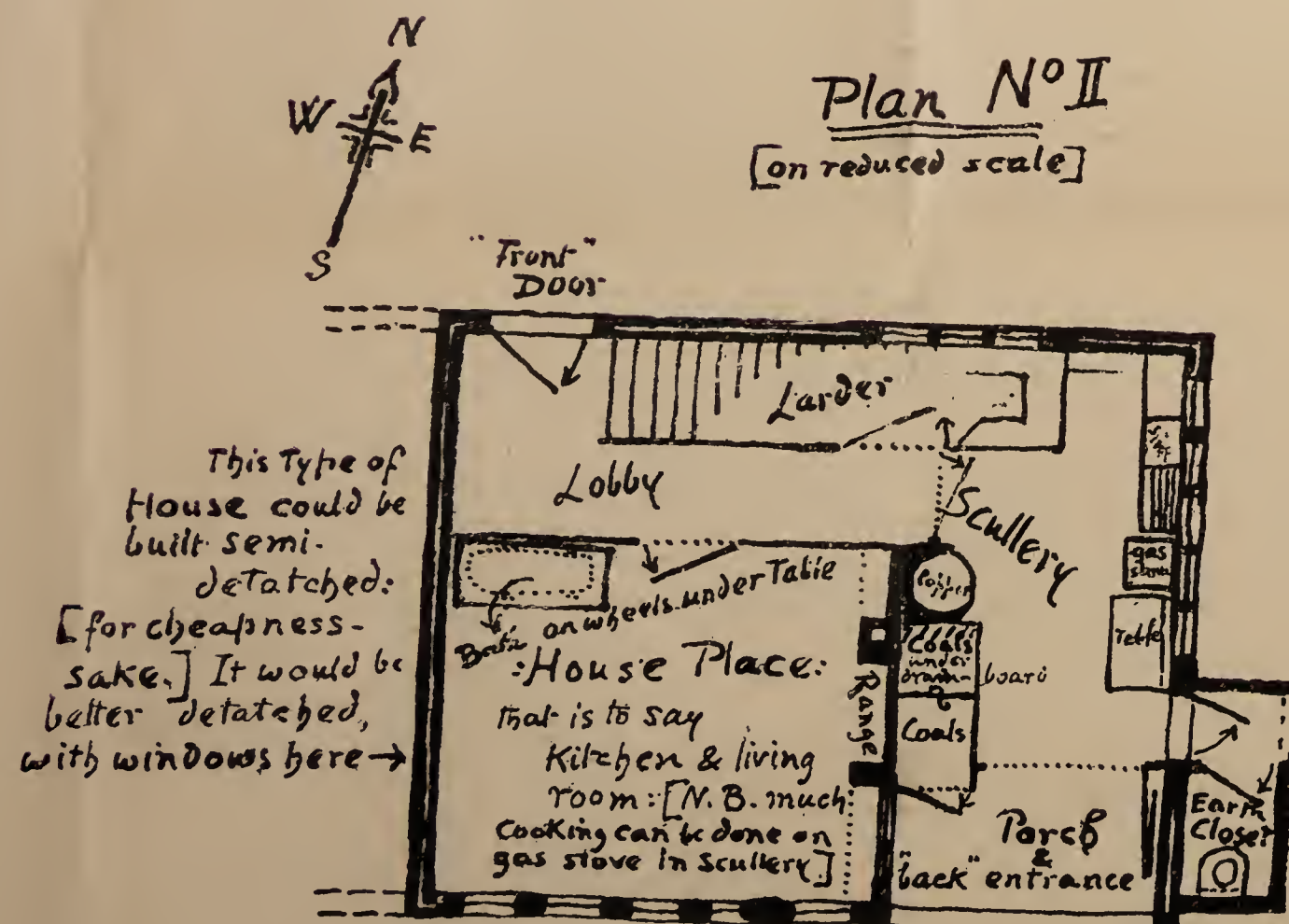
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are the two chief natural antiseptics of human environment, it is vital to any scheme of cottage building that the living rooms, of which the chief are the kitchen, the scullery and the bedrooms, should be towards the sun; and that the house should open upon a sufficient garden. To fulfil these conditions the house should be detached, and the living rooms should look South or South-east or South-west. Semi-detached houses or houses built in blocks of four are justified, under some circumstances, on account of the saving resulting from the use of party walls and of the reduced road frontage required. The advantages enjoyed by detached houses, in respect of health, light and convenience are however so great that they should not be cast away except for very adequate reasons. On the other hand, at any rate the more commodious type of cottage can probably be built detached at no greater cost than a semi-detached cottage offering the same accommodation. The saving resulting from the use of a party wall in the erection of semi-detached dwellings is generally lost, or more than lost, by the greater complication of the plan, the greater number of corners to be built, the greater number of hips in the roof and of valleys requiring expensive lead flashings, and by the fact that owing to the narrow frontage usually allowed, several of the necessary offices, wash-house, coal-cellar and w.c. are often crowded out of the main building and have to be built, at a considerable cost for walls and extra roofing, in the back yard. Contrast the narrow wedge-like plan of these existing houses in Over with the much simpler plan which is contrived on the principle that the whole house is under one roof.

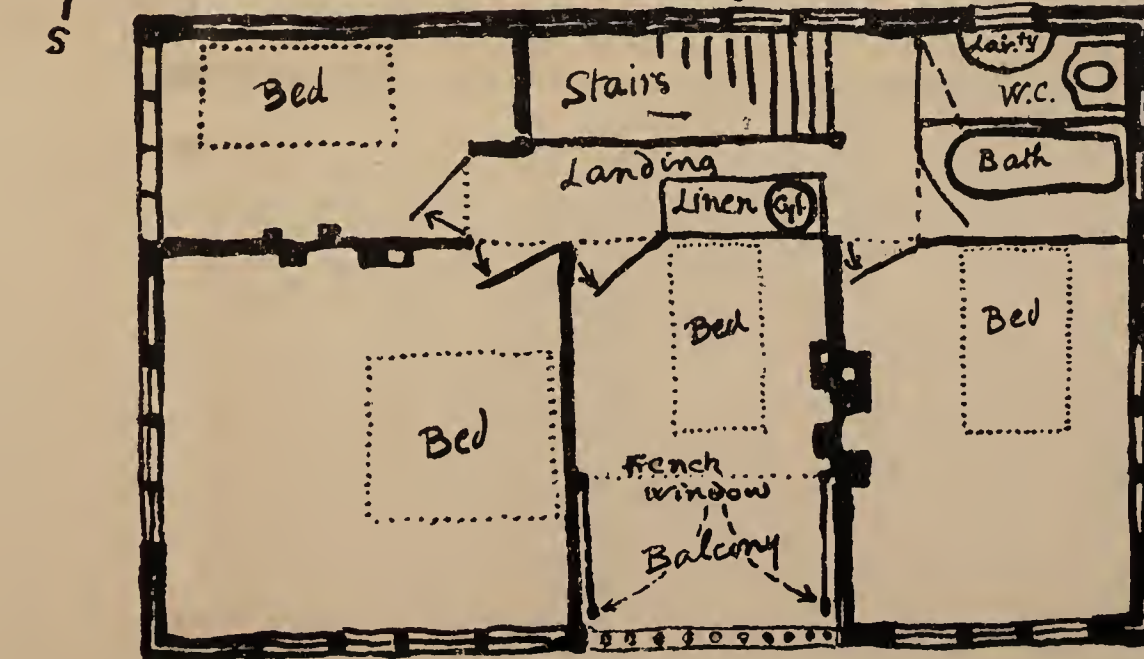


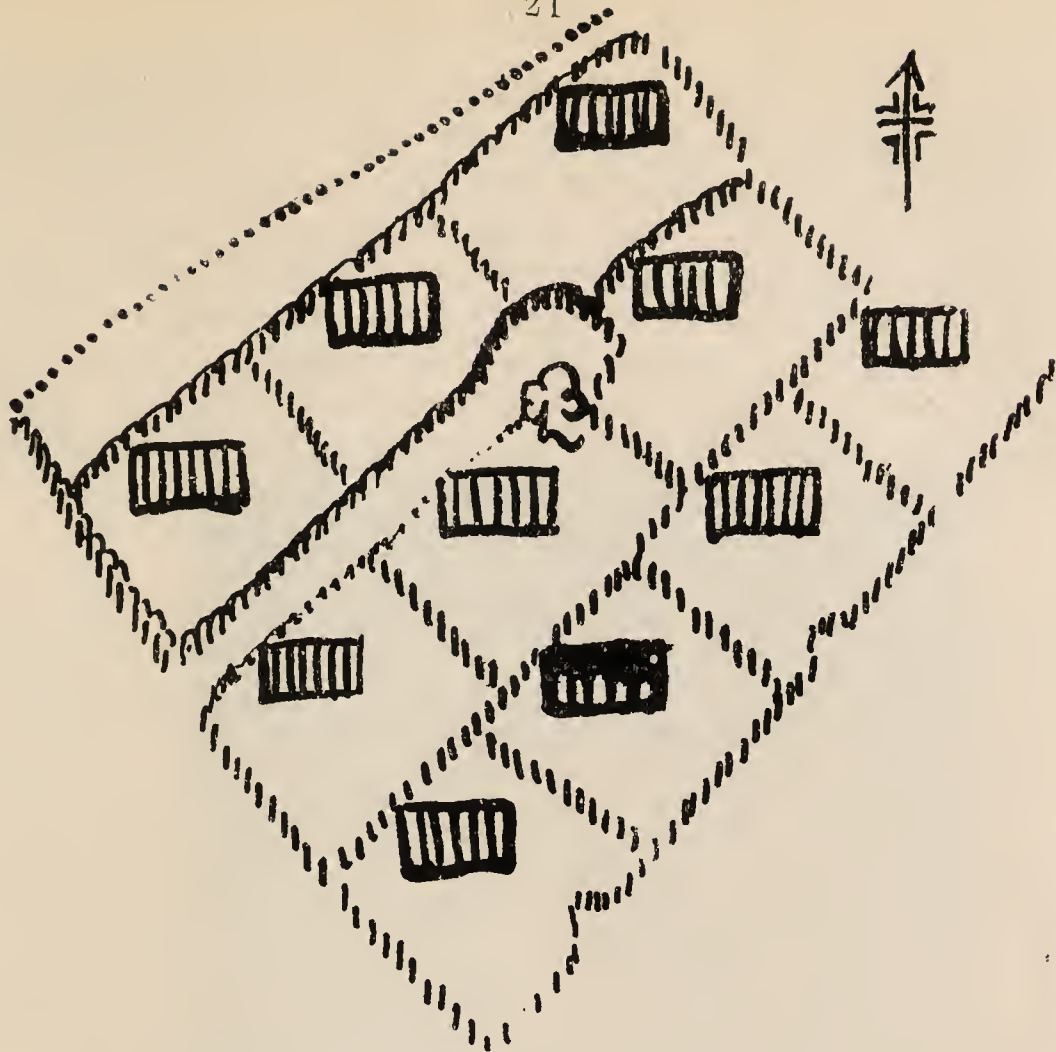
Plan N°II [on reduced scale]



N.B. 3 bedrooms upstairs

Bedroom floor of Plan N°I [on reduced scale] showing open-air bed-room





In the second sketch it will also be noted that the houses front the sun. The fact that there are no back projections renders all sides of the house of equally good appearance. Accessibility and aspect alone are considered, and the fetish of "frontage" sinks into insignificance. Indeed the more the houses can be grouped around carriage drives (by which is intended gravelled drives for occasional traffic running between hedges and grass borders, ending in a "turn round" and serving a few houses), the better, for, so arranged, they will be out of the dust of high roads and thoroughfares in these days of motor car traffic. Ample bedroom accommodation is perhaps the chief reason for a building scheme being undertaken. The inclusion of the offices of the house on the ground floor of the main building gives increased floor-space upstairs for the bedrooms. The Council will be well advised to build four bedrooms in each, or at any rate the majority, of the 40 houses. No doubt there are numbers of small families that only require three or even two bedrooms; but for those families plenty of cottages suitable to their needs will be released when the larger families are housed in the more commodious dwellings advocated. The plan No. I. annexed shews how a cottage with a total ground floor area (inside measurement) of 33 feet by 20 feet can be arranged with four bedrooms upstairs. Under the Housing of the Working Classes Acts in the Form of Application for Approval of Plans, such a type of house as that suggested, viz.: with four bedrooms, "living room" by which is meant kitchen, scullery and parlour, is recognised (under the heading "Class B. 4") as one of the three ordinary types to be built. The question of building the houses detached does not seem to be discussed in the official literature; but it appears to be

assumed that they will be semi-detached or in blocks of four, pierced by a bricked passage through the middle pair, which indicates a relapse to the evil tradition which the present movement towards better housing should do away with. Such blocks are attractive, as they look more dignified than single cottages. Cleverly handled they may have the air of old-world almshouses; but, convenience being subordinated to symmetry, and to a narrow margin of cheapness, they fail to provide those inestimable benefits of air and light which the same land and almost the same materials and workmanship would confer if employed in the opener type of development.

5. Plan.—An oblong house, the long axis running West to East almost, but tilted a little so that the length of the building faces South by East rather than due South is generally appropriate. The parlour should have one window to the West, and one to the South-east. The kitchen, which should be the chief room of the house, should look, from a wide window (suitably divided) to the South-east. The scullery, being particularly a room for morning use, should have an East window, but should also get the South sun. If the scullery open on to a South porch, (such porch being shewn on the plan in the body of the building, and not as an excrescence), and if there be a glass light of sufficient width above the door communicating between the scullery and the porch, the scullery will get light from the South as well as from the East. A wide folding door should divide the scullery from the porch so arranged that it can be securely bolted to the floor at the fold. The half door would ordinarily be used for ingress and egress. In suitable weather the whole door would be folded back out of the way, and the scullery and porch would together form one apartment open to the South. The sink would be at the North-east end of the scullery. The W.C. and bath-room would be upstairs above the North-east end of the scullery. The drains, therefore, would run from the North-east corner of the cottage. The stairs would occupy the midst of the North side of the house, and the larder would be under the stairs and the landing. The front door would open at the foot of the stairs, and on the right hand side on entering, that is to say in the North-west corner of the house, there would be a space of at least 6 ft. long in which a bicycle or perambulator could be placed. This space would be continuous with the passage way from which the parlour, kitchen, larder and scullery would be entered. All Fireplaces should be on inside walls, otherwise heat is wasted as the photo annexed shews.

6. Kitchen—Size suggested about 12 ft. by 14 ft.: window occupying almost the whole South wall: one door only, opposite the window. Distance from scullery sink to kitchen door 13 ft. (including 4 ft. of passage). The fact that the kitchen enters the scullery indirectly through the hall or passage may be open to criticism, but it permits of there being only one kitchen door, which, in a much lived in room is a great advantage. Range on wall between kitchen

The kitchen fire is behind this wall.



Photo illustrating waste of heat by fire-place on outside walls.

and scullery. A woman standing cooking at the range would have the window on her right hand. In the recess of the chimney breast on her left would be a china cupboard; and in the similar recess on her right space for a dresser about 4ft. 9in. long. Above the dresser a window would look into the porch, so that a woman cooking at the fire could easily keep under observation an infant sleeping in a perambulator in the porch. The boiler would be behind the kitchen fire. The cylinder would be on the upstairs landing about two yards horizontal distance away from the boiler.

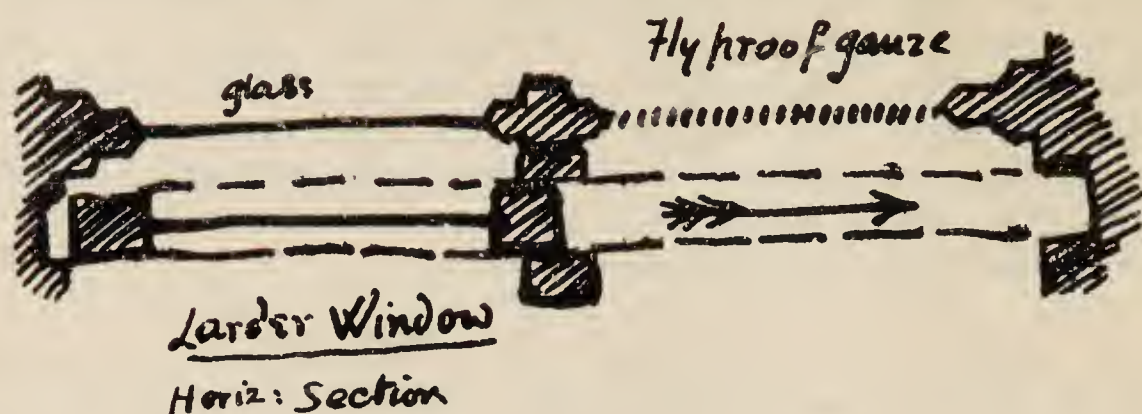
7. Scullery—Size suggested 15ft. by 10ft. extreme measurements, but the larder, coal cellar and copper, and other fixtures greatly reduce the area. In the North corner is the plate rack, and from North to South along the East wall run:—Drainboard and sink, gas cooking stove, flap-table, and garden tool cupboard. Opposite, and at the back of the kitchen fireplace is placed the copper. The scullery has East windows, and also South windows over the folding-door to the porch. This door is the back door to the house.

8. Porch—A porch is a great advantage—if it be used. Most porches are not used. The idea of making the scullery open on to it is that, as it opens to the South-east, and is therefore sunny and to leeward of the prevailing winds, working in the scullery with the folding doors open would be feasible and comfortable on about 200 days in the year. Considering the number of tuberculous patients which there always is in Winsford; that tuberculosis is fostered by indoor life; and that much has been hoped in the direction of checking the present increase of tuberculosis from better housing, it seems germane to a housing scheme to consider this question of making it possible for the woman of the house to carry out a great part of her duties in the fresh air. Somewhat similar arrangements are common enough at many farm houses, where they are of proved advantage. As stated already, the half door would provide for ordinary going and coming, and would serve in fact as the back door of the house when it was not desirable to have the whole door open.

9. Coal Cellar—The coal cellar is shewn on the plan to open on to the porch, so that it is possible to fetch coals without going from under the house roof. Size 6ft. by 3ft. The floor should be sunk 6in. below the level of the scullery floor. (The porch floor is on the same level as the scullery.) At the door the coal cellar would be the same height as the porch, but the innermost 3ft. would be in the nature of a coal-bunker projecting into the scullery, and bounded by the copper. It would be boarded over at the height of the top of the copper, say 2ft. 9in. [or 3ft. 3in. measuring from the bottom of the coal cellar] and a useful shelf or drain board would be formed in the scullery.

10. Larder—The larder would be under the stairs and landing. It would be 10ft. long by 3ft. broad, exclusive of space under the

stairs with diminishing headroom. A good window is essential, partly glazed and partly covered with fly-proof wire gauze.



Suitable stone or slate, and wooden shelving should be provided.

11. Stairs—Risers $7\frac{1}{4}$ in.: 15 of these will give between 8 and 9 feet as the height of the ground floor rooms. The stairs run straight up without winders or half landings. Probably a 9 in. tread is sufficient. Windows to open must be provided for the staircase.

12. W.C.—For the closet and bathroom separate compartments are provided at the top of the stairs. Also a wash-hand basin with hot and cold taps is provided in the same compartment as the W.C. Thus when one member of the family is having a bath another can be shaving at the wash-hand basin. The arrangement is more advantageous than placing the wash-hand basin in the bathroom. Size of compartment, 3 ft. \times 7 ft. 2 in.

13. Bathroom—Size 4 ft. \times 7 ft. 2 in.

14. Bedrooms—4 in number: all have or can have fire places. The sizes are :—

Bedroom facing	E. & S.	Size :—	10 ft. \times 13 ft. 6 in.
"	"	S.	" 9 ft. \times 7 ft. 3 in.
"	"	W. & S.	" 14 ft. \times 13 ft.
"	"	W. & N.	" 12 ft. \times 6 ft. 6 in.

15. Balcony—The little bedroom named second, which faces South, is curtailed in length in order to provide a balcony. This balcony is under the main roof of the house. It is 5 ft. wide from front to back, including the thickness of the wall. A balustrade should be provided with plain spokes to prevent children obtaining a foothold. A French window, with double doors opening outwards, should give access from the room to the balcony, A person sleeping in this little room would, if they chose to open the French window, be in the open air, though sheltered from almost any weather. The floor of the balcony should be 1 in. lower than the floor of the room, as the

lin. step tends to prevent rain washing in. Open air sleeping is so common a desideratum both for the healthy and the sick that this arrangement, which costs little, or indeed, owing to the brickwork saved, possibly nothing, should not be overlooked.

16. Height of rooms on bedroom floor.—About 8ft.

17. Linen Cupboard and Cylinder.—A cupboard measuring about 4ft. \times 2ft. is shewn on the landing. It should contain the cylinder at its east side. Shelving should be provided, and above the cylinder there should be slatted racks for airing clothes.

18. Walls should be 11in. thick with 2in. cavity. The cavity should not be ventilated. Inside walls as required.

19 Roof—Probably an ordinary two span roof running East and West the whole length of the building will be efficient, and cheaper than a pyramidal roof: the matter is purely one for the architect. The reasons for which pyramidal roofs appear to be preferred in the Local Government Board Housing Manual plans are to be taken into consideration. Thick, small, rough slates keep out the cold and heat better than thin, smooth, large ones.

20. All the windows, or almost all should open. Casement windows, in spite of drawbacks, are the most generally suitable for cottages, if toplights above a transom are provided. The toplights should open inwards, being hinged below, or they may be hinged at their middle so that their top half falls inwards, and their lower half outwards. Either of these ways prevents the entrance of rain, and permits of the ventilation of the topmost levels of the apartment. Casements should be of standard sizes, and panes should be of one uniform size, economical provisions both as to first cost and upkeep. Of course any number of casements may go to a window; for instance the kitchen window should occupy the whole south wall of the apartment, and should have six casements. If the six casements be hung like three pairs of folding doors then only two mullions will be required; and also it will be possible from the inside of the room to clean the outside of the glass.

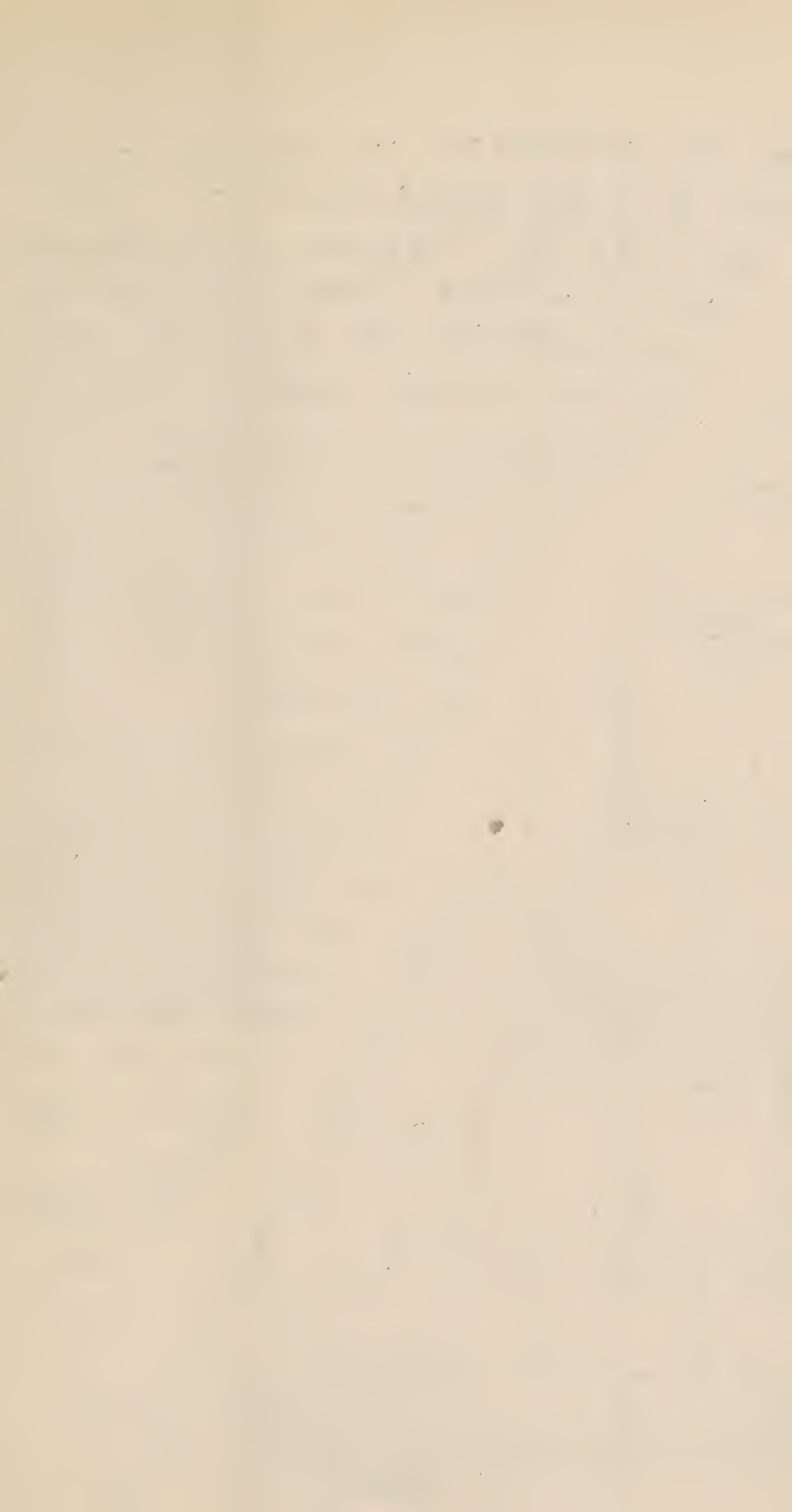
21. A small paved area may be useful outside the porch; and a blue brick ledge or sill about 6in. high on the East side of the house should be provided on which to stand several galvanised iron ash or refuse bins.

22. Such a house as that just described would form a suitable dwelling for an artizan with a young family growing up and commencing to earn their living, or still attending at school. It is provision of really healthy houses for families of that type that is the great need of the district. Not that the housing is particularly bad, compared with other areas: quite the contrary is the case; but

there is no doubt at all that the present cry for better housing is a genuine demand for the abandonment of what may be described as the Victorian standard of urban dwelling, which consisted of row upon row of wedge-shaped buildings with slatternly back yards dove-tailed between the narrow part of the wedges. Health is inconsistent with such a scene of morbid urban development. A reversion to the type of house built four-square and standing in its own ground is called for, and can alone in the long run satisfy the needs, of which the realisation by the public has grown during and since the war. The great initial expense is a stumbling block, causing even the advocates of better housing to hark back to the false economy of building in rows or blocks of four or six houses. That error should be avoided at all costs in Winsford where the capital need is for houses for the larger families, to which garden ground is especially desirable. A garden is the only suitable place for a child to play under the eye of his mother from the cottage windows. An allotment has no value in that connection; nor have the "open spaces," which are admittedly such pleasant features of recently promulgated housing schemes, a value equal to that of gardens actually forming the curtilage of the houses themselves.

23. Expense of building may be curtailed in several ways, such as the adoption of square or oblong plans; the inclusion of all rooms and offices under one roof; the use of standard sizes and patterns of window-panes, casements, doors, door and window fastenings; plain single span roof; chimneys grouped in as few stacks as possible; all drainage concentrated to one corner of each cottage; the use of a common drain to serve a group of cottages; the laying of the same in garden-ground (owned by the public) rather than in a road, as a road is costly to take up and lay down; the use of drives leading off a main road to approach or give access to a group of houses, with necessary drains to carry off rainwater only, instead of heavily metalled thoroughfares which require to be curbed and channelled; the use of grass verges and gravelled paths instead of flagged side-walks; the entire abandonment of useless dwarf walls and iron railings, and of gardens on the north sides of houses, for there is no objection to the staircase windows being close up to such roads as those contemplated; and the substitution of the practice of dividing gardens by hedges, and not by garden walls. After careful calculation, the Committee presided over by Sir John Tudor Walters concluded that a lay out of the open type, though using more land, was actually less costly than the closely-packed, heavily-paved slum. With the open type of development building land value approximates more nearly to agricultural value.

The Local Government Board offers facilities for acquiring certain requisites on terms which appear far more favourable than otherwise obtainable, which offer opens up another avenue of economy.



N.B. If the whole field were used, 60 houses wld. be accommodated, on the same principles of lay-out.

Lay-out of houses on the Church-Hill field: 8 to the acre, including roads.

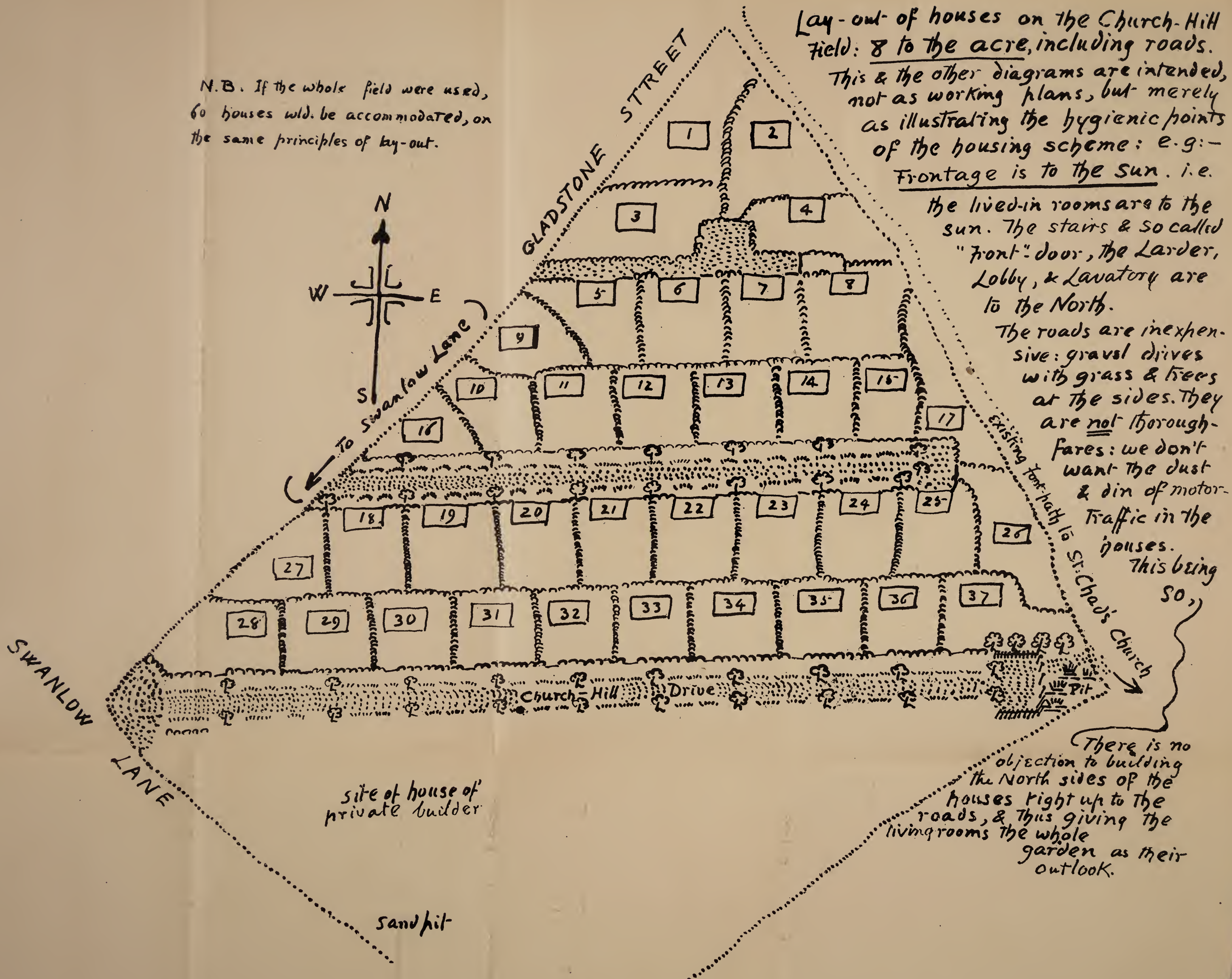
This & the other diagrams are intended, not as working plans, but merely as illustrating the hygienic points of the housing scheme: e.g.:-
Frontage is to the Sun. i.e.

the lived-in rooms are to the sun. The stairs & so called "front" door, the Larder, Lobby, & Lavatory are to the North.

The roads are inexpensive: gravel drives with grass & trees at the sides. They are not thoroughfares: we don't want the dust & din of motor-traffic in the houses.

This being so,

There is no objection to building the North sides of the houses right up to the roads, & thus giving the living rooms the whole garden as their outlook.



24. But in spite of all economies, houses of the character described, or of the character to satisfy the minimum requirements of the Local Government Board must involve so large an outlay that the Council may feel it prudent to consider whether the requirements suggested in the house described cannot be cut down.

25. Calculation of cost of the desired type of house is impossible prior to the architect's plans and specification being prepared ; but before considering reduction of the requirements it is important to note that the method of estimating the price of a broad fronted house by calculating its cost per cubic foot is said by Sir John Tudor Walters' Committee to be fallacious, and to give too high a figure.

26. If after full investigation and competent architectural advice, and the careful examination of the scheme in view of all available data, it were found, as seems likely, that 40 detached houses with suitable gardens could be built with all necessary drives and drainage work, etc., for a reasonable figure per house on the Church Hill Site, the Council might be well advised to proceed with the scheme on that basis, in the certainty that the group of dwellings would prove an invaluable asset to the town. Annexed is a rough sketch map of a possible lay-out of the Church Hill Site, drawn up however to show 60 houses, not 40. The former number allows eight houses to the acre exclusive of roads. As Winsford in that part, at any rate, is in fact rural, the proportion suggested accords roughly with the standard—8 per acre—laid down by the Local Government Board.

27. Coming to the question of what action is to be advised if the cost be prohibitive for present financial resources, there is no doubt that the ways of reducing the cost of the proposed houses fall under four heads which I will mention in the order of preference :—

i. The least sacrifice would be that of giving up the parlour and the bathroom and one bedroom ; of substituting a bath on wheels or under the scullery flap-table, and bringing the closet downstairs, adjacent to the porch on its East side (see suggested plan No. II.) If that were done the kitchen might be made larger on the West side.

ii. If still the house were too expensive, then the next surrender to economy would require that it should be built semi-detached. That would save one 11 in. wall, but would entail the loss of invaluable light and autonomy. Another important economy may be effected if two houses be built together, viz.—by clever planning, one chimney stack may serve for all the flues from both.

iii. A further cheapening would result from reducing the size of the gardens, so as to increase the number per acre from 8 to 12, twelve being the maximum figure allowed by the Local Government

Board. This would possibly reduce the length of the drives somewhat, but not materially.

iv. The final suggestion that might be made to cheapen any scheme for building would be regrettable, unless inevitable. It would be to restrict building to sites by existing road frontages.

Before adopting that fourth alternative the Council will be well advised to note that it will with difficulty avoid all the pitfalls of those very methods of Town development which the present Housing Bill sets out to surpass.*

Unless care be exercised, building on the vacant land in Gladstone Street below Town Fields will tend to change and congest the open character of that thoroughfare. The same is true of any considerable building scheme applied to the lower part of St. George's Road or to the High Street Site above the Wesleyan Chapel. They are both possible sites but could supply but few of the plots required for houses arranged on the opener methods insisted on by the Government Authority, without the development of new roads.

28. In view of the fact that the step now contemplated by the Council is its first venture in Municipal Housing, that it is very desirable for its credit that whatever scheme adopted should add to the dignity and amenity of the Town, that the houses should be attractive, and easy to let, and should be assets of permanent value so that in the long run they should pay for themselves, and should thus form in no mere sentimental sense a substantial memorial of the War which has awakened the public to the value of airy dwellings for the nurture of children, and of baths and gardens, and in view of the discovery that an efficient contented population must be decently housed, and that inefficient housing is a prime factor in engendering and spreading disease, and results in an anæmic and devitalised population,—in view of all these considerations combined, the Council is advised:—that the 40 houses should have a kitchen of size 14ft. by 12ft. or 13ft., with a good scullery opening on to a porch, and that both kitchen and scullery should share the sun, that there should be certainly 3 bedrooms if not 4, and that a fourth is in some of them a desideratum; that a garden is essential to a suitable house for a working-man's family, not cut off from the house by a backyard, but immediately adjacent to the house itself; that the houses will be better and in the long run worth more if they be detached; and that these new houses should be reached by drives rather than heavily curbed and channelled thoroughfares, and that these drives should be bordered with grass verges, and planted in the gaps between the houses with trees such as chestnuts, and limes, and hawthorn.

LIONEL JAS. PICTON,

June 3rd, 1919.

Medical Officer of Health.

* The Council has, however, determined on this in the case of the Wharton site.

Development of the Council's Housing Scheme.

Immediately after the receipt of the above report the Council decided to build not more than 16 of the houses on the Crook Lane Site, influenced thereto by the existing provision there of sewerage, water and gas supply, and frontage on a ready-made road. It was considered simplest to continue the present building line. The houses have been planned without back projections, which is a point gained; but it is regrettable that they should be built in the traditional manner, fronting the road and with blind sides to the sun. A couple of "dead ends" piercing the land from Crook Lane would open up the back of the site and admit of a better disposition of the houses.

The site of the greater part of the scheme, which is to be in Over, is not yet finally selected.

VII.—Appendices—Statistics for the 12 months ended, December 31st, 1919.

- (1.) *Number of Dwelling-houses in respect of which complaints were made by householders that they are unfit for human habitation.*

Section 31 (1) of the Act of 1890.

Section 6 (2) of the Local Government Act, 1894—Nil.

- (2.) *Action under Section 17 of the Housing Act of 1909.*

- (a) Number of Dwelling-houses inspected under and for the purpose of the Section—Nil.
- (b) Number of Dwelling-houses which were considered to be unfit for human habitation—Nil.
- (c) Number of Dwelling-houses the defects in which were remedied without the making of Closing Orders—5.

- (3.) *Action under Section 38 of the Housing Act of 1919 :—*

- (a) Number of orders for repairs issued—Nil.
- (b) Number of cases in which repairs were carried out by the Local Authority—Nil.
- (c) Number of Dwelling-houses voluntarily closed on notice by owner that they could not be made fit without reconstruction—Nil.

- (4.) *Closing Orders :—*

- (a) Number of representations made to the Local Authority with the view to the making of Closing Orders—Nil.
- (b) Number of Closing Orders made—Nil.
- (c) Number of Dwelling-houses in regard to which Closing Orders were determined, on the houses being made fit for human habitation—Nil.

- (5.) *Demolition Orders :—*

- (a) Number of Demolition Orders made—Nil.
- (b) Number of houses demolished in pursuance of Demolition Orders—Nil.

- (6.) *Number of houses demolished voluntarily :—Nil.*

(7.) *Obstructive Buildings:—*

- (a) Number of representations made (Section 38 of the Housing Act of 1890)—Nil.
- (b) Number of Buildings demolished—Nil.
- (c) Number of representations still under consideration—Nil.

(8.) *Staff engaged in housing work with, briefly, duties of each Officer:—*

The Surveyor, Mr. Wilkinson, who is not a Public Health Officer, is in charge of the erection of new buildings, and of sewers and scavenging (except hitherto, of peat pails and cesspool privies.)

The Staff of the Health Department, in addition to the Medical Officer of the Welfare Centre and the Health Visitor who are not directly concerned with housing, consists only of the Sanitary Inspector, Mr. Hickson, and myself.

I desire to acknowledge my indebtedness to Mr. Hickson not only for statistical and other information embodied in the report, but also for his loyal service to this small department. There is nothing of "ca' canny" about his work, and overtime is freely put in. It is satisfactory to note that the Council has recognised, by the recent adjustment of the basis of his salary, that the responsibilities of his office were inadequately remunerated, but is regrettable that the basis upon which all advances are calculated remains at the pre-war figure of £125, a sum inadequate to the status of this Officer.

The reason of the great length of this report is that the Local Government Board, during the War, ordered that reports should be cut short, but asked, as I informed the Council in February, 1919, "to receive later on, as soon as the Medical Officer of Health is in a position to make it, a full report on the sanitary condition of the District at the close of the war, and on the sanitary needs of the District in the future"

I am, Sirs,

Your obedient Servant,

LIONEL JAS. PICTON.

